

REHABILITATE SALT RIVER VISITOR CONTACT STATION

SALT RIVER BAY NATIONAL HISTORICAL PARK & ECOLOGICAL PRESERVE

DESIGN DEVELOPMENT: COST ESTIMATE

2/3/2021

SUBMITTAL

DESIGNED BY: LIOLLO ARCHITECTURE CHARLESTON, SC	SUBMITTED BY: 45E MOUNT PLEASANT, SC
MEP: DWG. INC. MOUNT PLEASANT, SC	CIVIL + LANDSCAPE: STANTEC NORTH CHARLESTON, SC

Mark	Sheet	REVISION	Date	Initial

QUALITY DESIGN CERTIFICATION	
<input type="checkbox"/> Prepared in Accordance with Design Development (Title I)	Drawing No. _____
<input type="checkbox"/> Variance from Design Development (Title I)	Approved by Superintendent on _____
<input type="checkbox"/> Construction Drawing Not Preceded by Design Development (Title I)	Drawing No. _____
Project Manager _____	Date _____



DESIGN DEVELOPMENT
UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE DENVER SERVICE CENTER

TITLE OF PROJECT REHABILITATE SALT RIVER VISITOR CONTACT STATION		
LOCATION WITHIN PARK SALT RIVER BAY		
NAME OF PARK SALT RIVER BAY NATIONAL HISTORICAL PARK		
REGION SOUTHEAST	ISLAND ST. CROIX	TERRITORY VIRGIN ISLANDS

DRAWING NO. 399 170432
PMIS/PKG. NO. 251127
SHEET 1 OF 29

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ELECTRICAL

PROFESSIONAL SEAL

DESIGNED:
BOWMAN

CADD:
BECK

TECH. REVIEW:
BROADWATER

DATE:
2/3/2021

SUB SHEET NO.

G0.01

TITLE OF SHEET

PROJECT INFORMATION & INDEX

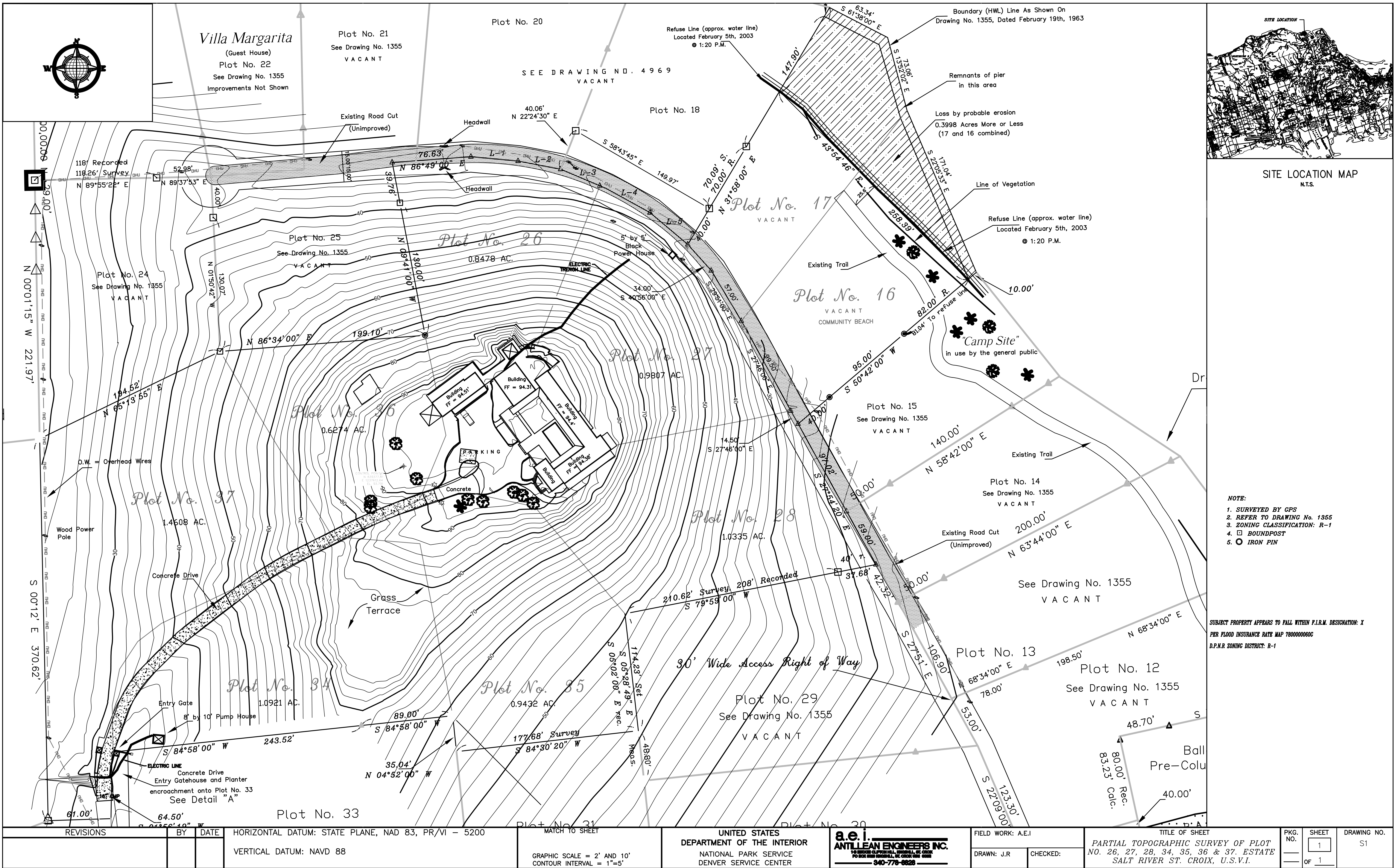
SALT RIVER BAY NATIONAL HISTORICAL PARK
REHABILITATE SALT RIVER VISITOR CONTACT STATION

DRAWING NO.
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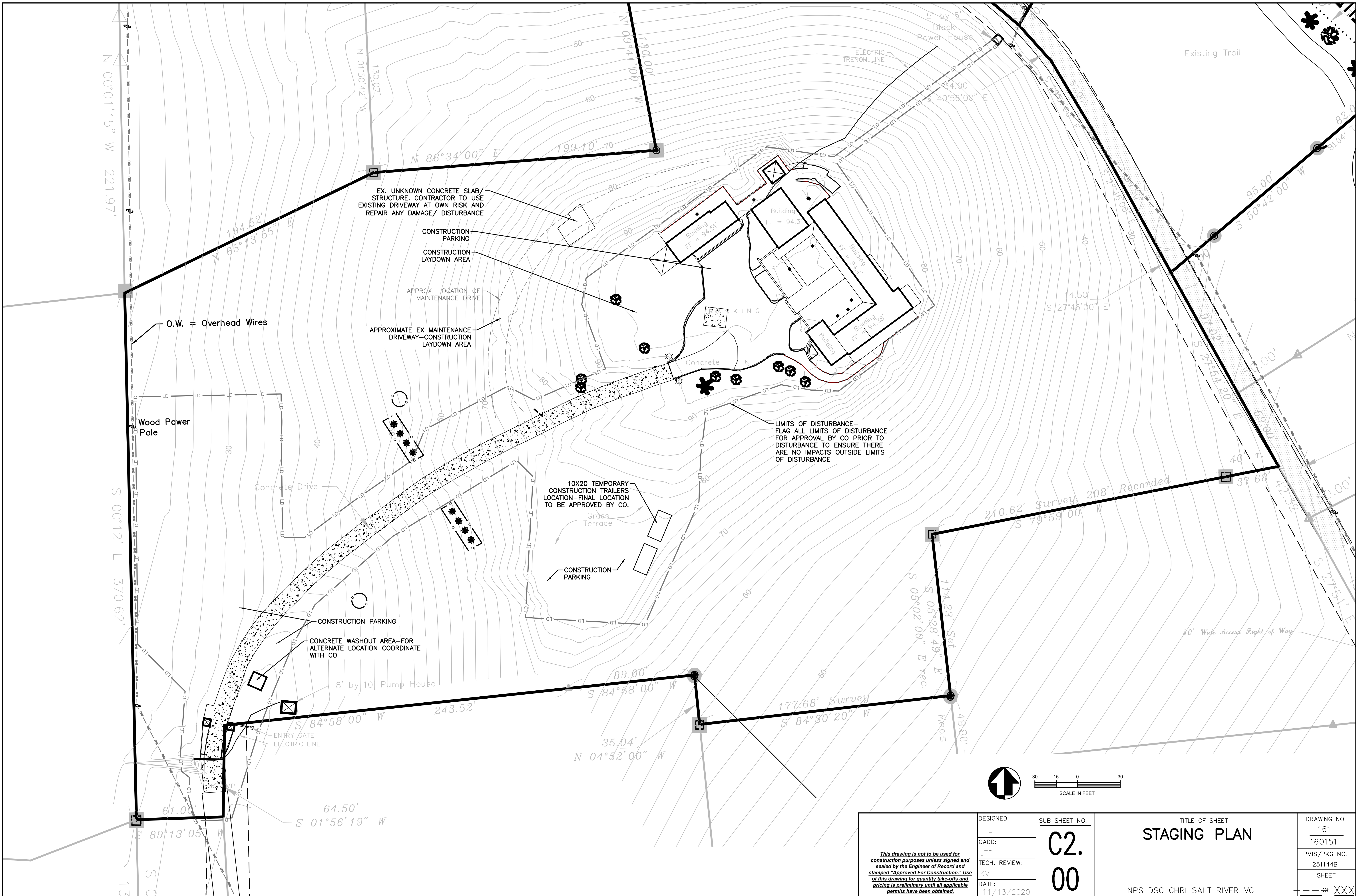
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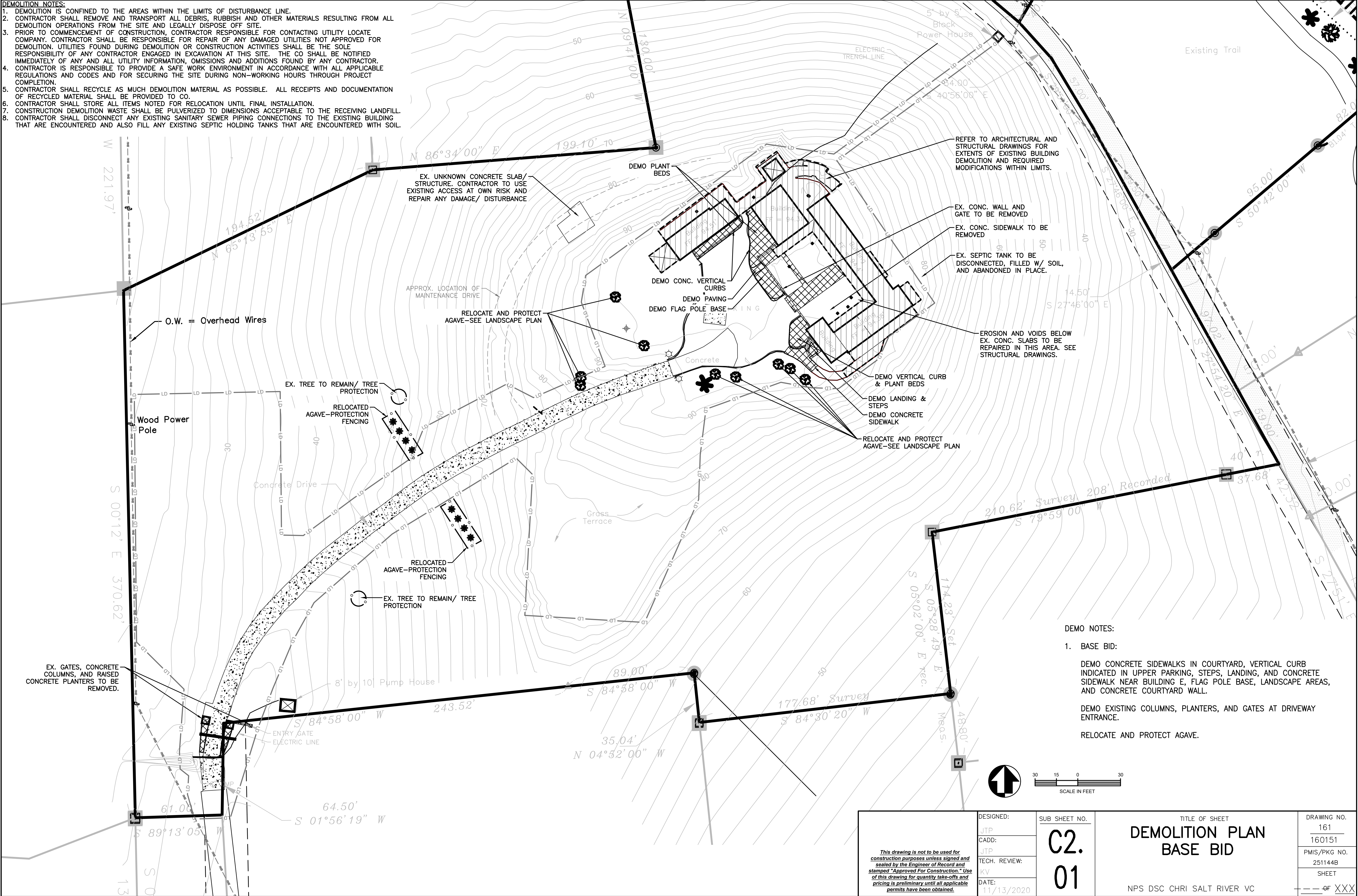


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	JTP			161
	CADD:	C2.		160151
	JTP			PMIS/PKG NO.
	TECH. REVIEW:			251144B
KV	SHEET			
DATE:	00	NPS DSC CHRI SALT RIVER VC	— — — OF XXX	
11/13/2020				

- DEMOLITION NOTES:
- DEMOLITION IS CONFINED TO THE AREAS WITHIN THE LIMITS OF DISTURBANCE LINE.
 - CONTRACTOR SHALL REMOVE AND TRANSPORT ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM ALL DEMOLITION OPERATIONS FROM THE SITE AND LEGALLY DISPOSE OFF SITE.
 - PRIOR TO COMMENCEMENT OF CONSTRUCTION, CONTRACTOR RESPONSIBLE FOR CONTACTING UTILITY LOCATE COMPANY. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGED UTILITIES NOT APPROVED FOR DEMOLITION. UTILITIES FOUND DURING DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF ANY CONTRACTOR ENGAGED IN EXCAVATION AT THIS SITE. THE CO SHALL BE NOTIFIED IMMEDIATELY OF ANY AND ALL UTILITY INFORMATION, OMISSIONS AND ADDITIONS FOUND BY ANY CONTRACTOR.
 - CONTRACTOR IS RESPONSIBLE TO PROVIDE A SAFE WORK ENVIRONMENT IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND CODES AND FOR SECURING THE SITE DURING NON-WORKING HOURS THROUGH PROJECT COMPLETION.
 - CONTRACTOR SHALL RECYCLE AS MUCH DEMOLITION MATERIAL AS POSSIBLE. ALL RECEIPTS AND DOCUMENTATION OF RECYCLED MATERIAL SHALL BE PROVIDED TO CO.
 - CONTRACTOR SHALL STORE ALL ITEMS NOTED FOR RELOCATION UNTIL FINAL INSTALLATION.
 - CONSTRUCTION DEMOLITION WASTE SHALL BE PULVERIZED TO DIMENSIONS ACCEPTABLE TO THE RECEIVING LANDFILL.
 - CONTRACTOR SHALL DISCONNECT ANY EXISTING SANITARY SEWER PIPING CONNECTIONS TO THE EXISTING BUILDING THAT ARE ENCOUNTERED AND ALSO FILL ANY EXISTING SEPTIC HOLDING TANKS THAT ARE ENCOUNTERED WITH SOIL.



DEMOLITION NOTES:

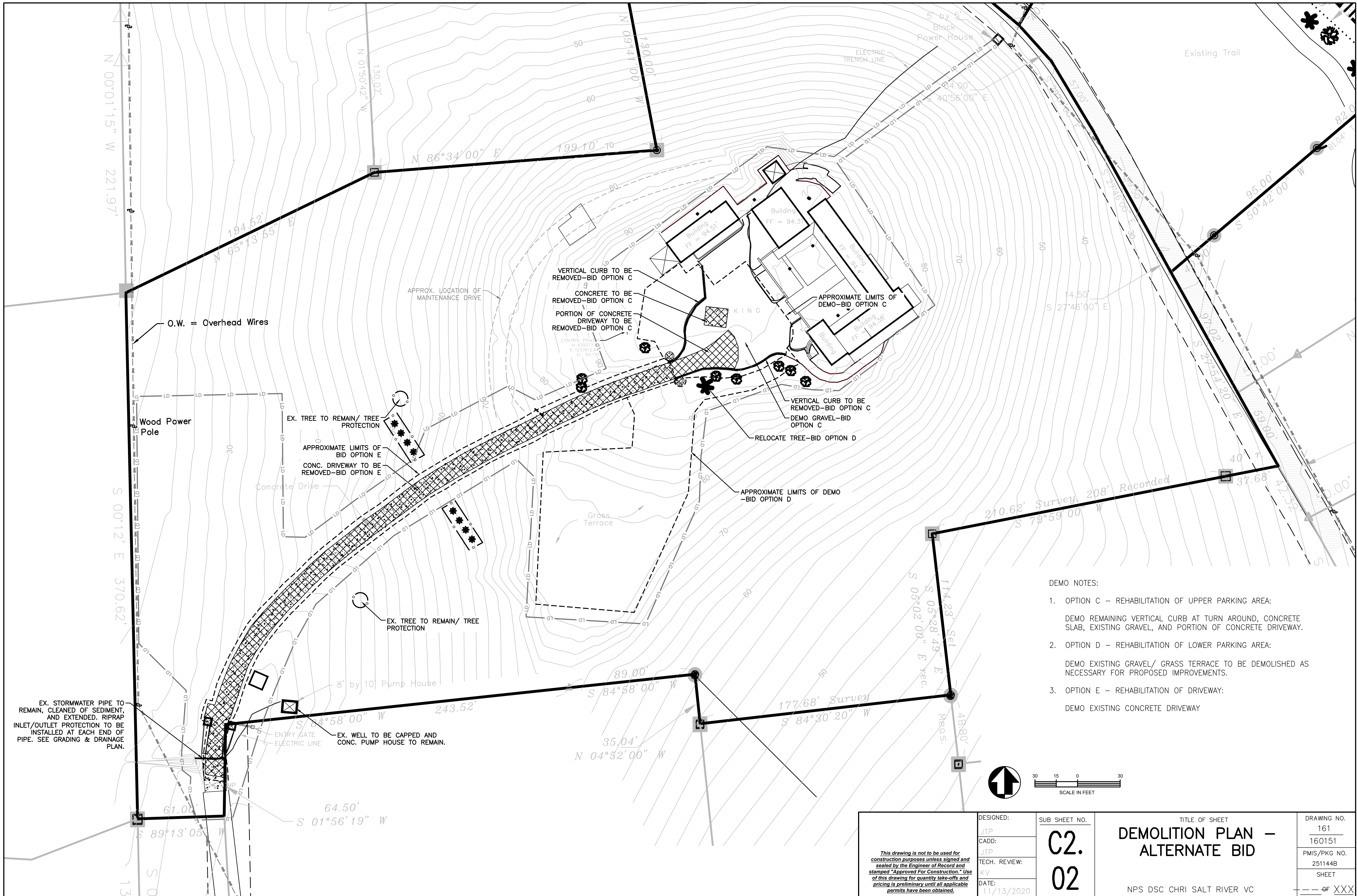
1. BASE BID:

DEMOLITION CONCRETE SIDEWALKS IN COURTYARD, VERTICAL CURB INDICATED IN UPPER PARKING, STEPS, LANDING, AND CONCRETE SIDEWALK NEAR BUILDING E, FLAG POLE BASE, LANDSCAPE AREAS, AND CONCRETE COURTYARD WALL.

DEMOLITION EXISTING COLUMNS, PLANTERS, AND GATES AT DRIVEWAY ENTRANCE.

RELOCATE AND PROTECT AGAVE.

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DEMO NOTES:

1. OPTION C – REHABILITATION OF UPPER PARKING AREA:
DEMO REMAINING VERTICAL CURB AT TURN AROUND, CONCRETE SLAB, EXISTING GRAVEL, AND PORTION OF CONCRETE DRIVEWAY.
2. OPTION D – REHABILITATION OF LOWER PARKING AREA:
DEMO EXISTING GRAVEL/ GRASS TERRACE TO BE DEMOLISHED AS NECESSARY FOR PROPOSED IMPROVEMENTS.
3. OPTION E – REHABILITATION OF DRIVEWAY:
DEMO EXISTING CONCRETE DRIVEWAY

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	JTP			161
	CADD:			160151
	JTP			PMIS/PKG NO.
	TECH. REVIEW:			251144B
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DATE:	11/13/2020		NPS DSC CHRI SALT RIVER VC	— — — OF XXX





- LEGEND**
- SF SILT FENCE
 - WATTLE
 - > DIVERSION SWALE
 - LD LIMITS OF DISTURBANCE
 - M MULCHING
 - PS PERMANENT STABILIZATION (SEE LANDSCAPE PLANS)
 - TS TEMPORARY SEEDING
 - DC DUST CONTROL
 - A TYPE A INLET CONTROL

INSTALL PERMANENT SEEDING AND NAG SC150 LINER (OR APPROVED EQUAL) IN ALL PROPOSED DITCH SECTIONS AND ON ALL SIDE-SLOPES 3:1 OR STEEPER. SEE DETAILS.

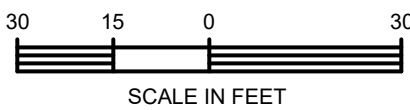
E&SC MEASURES LABELED ON THIS SHEET SHALL BE INSTALLED FOR ANY AND ALL BID ALTERNATE OPTIONS IN ADDITION TO ALL MEASURES SHOWN ON THE BASE BID PHASE 1 & 2 EROSION & SEDIMENT CONTROL PLANS.

UTILITY RELOCATION NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING EXISTING UTILITIES (UNDERGROUND CABLE, UNDERGROUND ELECTRIC) AS REQUIRED.
- EXISTING UTILITIES WITH A VERTICAL CLEARANCE OF LESS THAN 6 INCHES OF THE PROPOSED ASPHALT IMPROVEMENTS (FULL PAVEMENT SECTION) SHALL BE RELOCATED.
- EXISTING UTILITIES THAT REQUIRE RELOCATION SHALL:
 - MATCH EXISTING BURIAL DEPTH
 - BE PLACED A MINIMUM 12 INCHES OUTSIDE PROPOSED EDGE OF PAVEMENT.
- CONTRACTOR TO COORDINATE RELOCATIONS WITH EACH UTILITY AGENCY BEFORE CONSTRUCTION/RELOCATION BEGINS.

SEQUENCE OF CONSTRUCTION:

- NOTIFY CO 48 HOURS PRIOR TO BEGINNING LAND-DISTURBING ACTIVITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING ALL EXISTING UTILITIES WITHIN PROJECT LIMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. ALL EXISTING UTILITY INFORMATION & LOCATIONS SHALL BE INCLUDED IN AS-BUILT DRAWINGS.
- INSTALL CONSTRUCTION ENTRANCE, SILT FENCE, AND DIVERSION DIKES (INCLUDING OUTLET PROTECTION). INSTALL ALL SEDIMENT TRAPS DEPICTED ON THIS SHEET IN ACCORDANCE WITH LOCAL MINIMUM STANDARDS.
- COORDINATE WITH CO AND ARCHAEOLOGIST BEFORE DEMOLITION BEGINS.
- CLEAR PROJECT TO CLEARING LIMITS AS SHOWN, LEAVING PROTECTED TREES.
- CONTINUE TO PHASE 2.



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	CADD:			160151
	TECH. REVIEW:			PMIS/PKG NO. 251144B
	DATE:			SHEET
				— OF XXX

SF

WATTLE

DIVERSION SWALE

LD

M

PS

TS

DC

A

SILT FENCE

WATTLE

DIVERSION SWALE

LIMITS OF DISTURBANCE

MULCHING

PERMANENT STABILIZATION
(SEE LANDSCAPE PLANS)

TEMPORARY SEEDING

DUST CONTROL

TYPE A INLET CONTROL

INSTALL PERMANENT SEEDING AND NAG
SC150 LINER (OR APPROVED EQUAL)
IN ALL PROPOSED DITCH SECTIONS
AND ON ALL SIDE-SLOPES 3:1 OR
STEEPER. SEE DETAILS.

E&SC MEASURES SHOWN ON THIS SHEET
SHALL BE INSTALLED FOR ANY AND ALL
BID ALTERNATE OPTIONS IN ADDITION TO
ALL MEASURES SHOWN ON THE BASE
BID PHASE 1 & 2 EROSION &
SEDIMENT CONTROL PLANS.

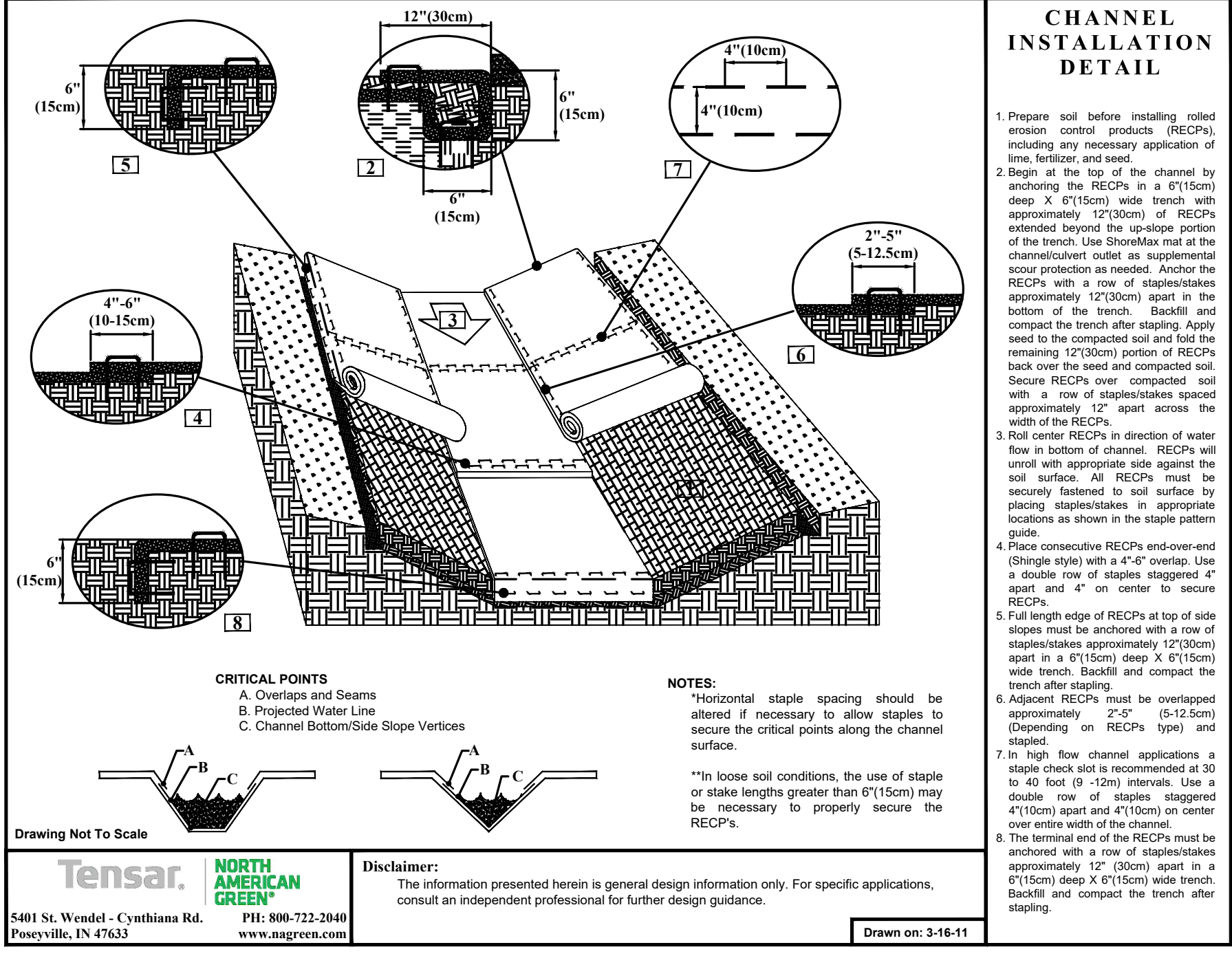
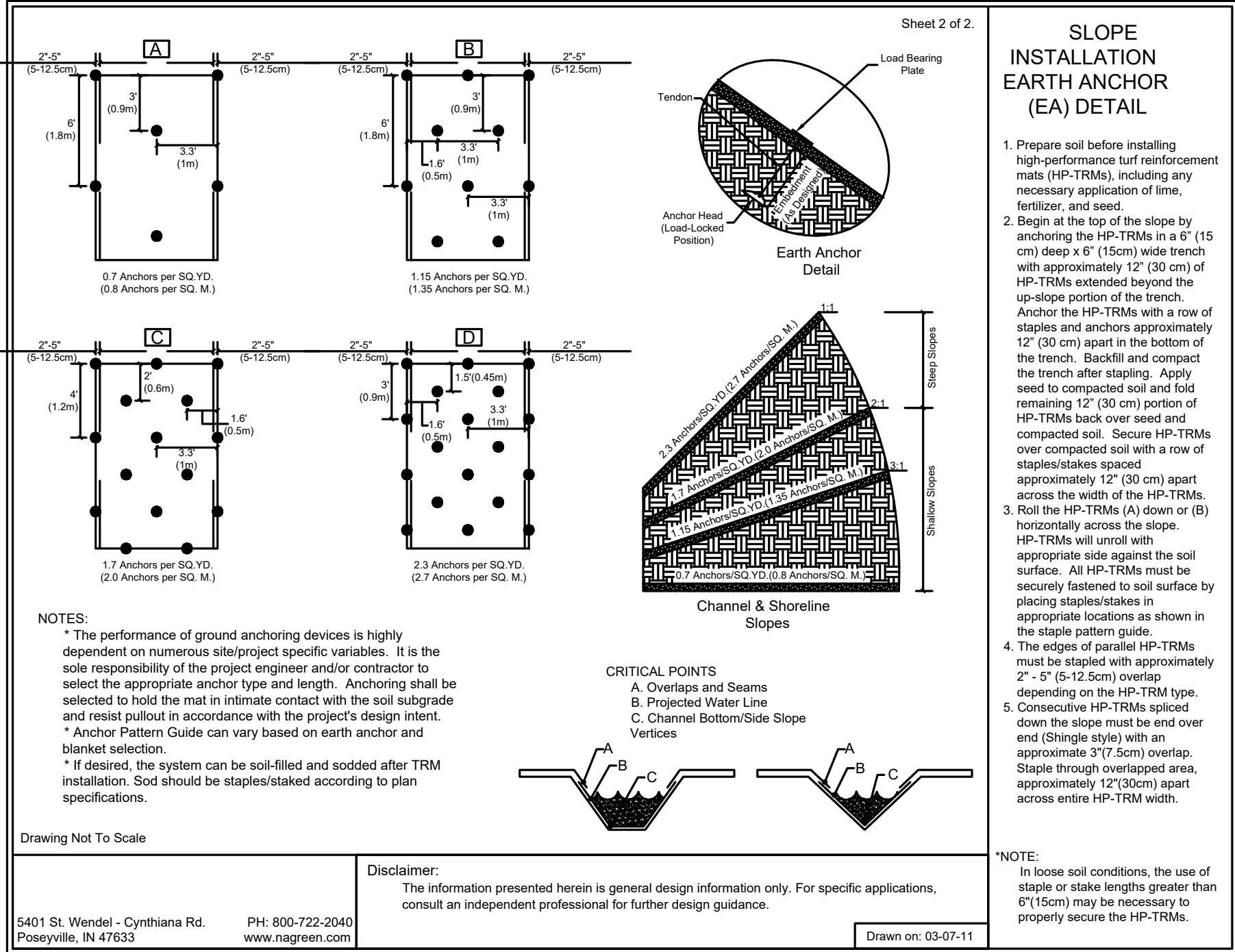
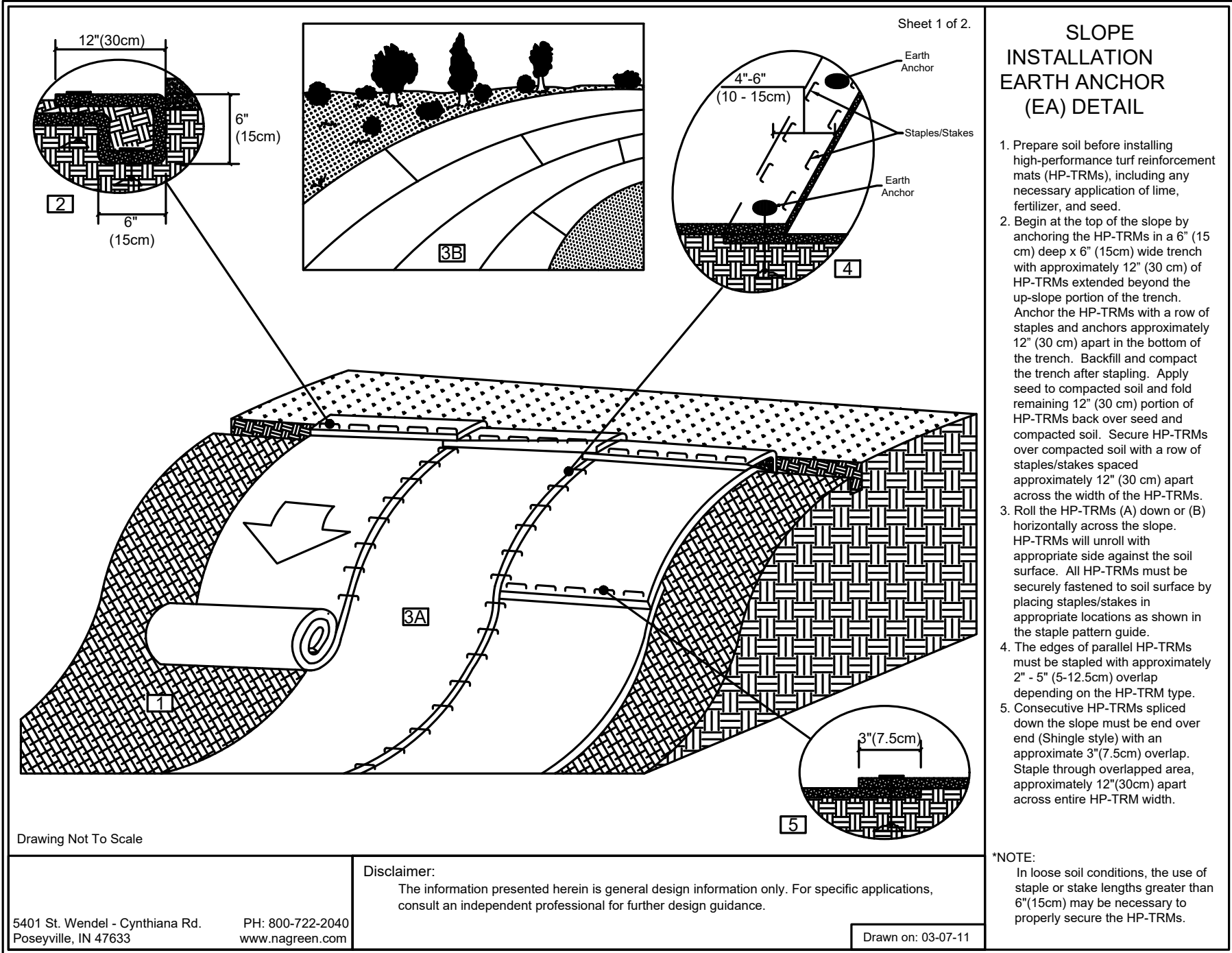
UTILITY RELOCATION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING EXISTING UTILITIES (UNDERGROUND CABLE, UNDERGROUND ELECTRIC) AS REQUIRED.
2. EXISTING UTILITIES WITH A VERTICAL CLEARANCE OF LESS THAN 6 INCHES OF THE PROPOSED ASPHALT IMPROVEMENTS (FULL PAVEMENT SECTION) SHALL BE RELOCATED.
3. EXISTING UTILITIES THAT REQUIRE RELOCATION SHALL:
 - 3.1. MATCH EXISTING BURIAL DEPTH
 - 3.2. BE PLACED A MINIMUM 12 INCHES OUTSIDE PROPOSED EDGE OF PAVEMENT.
4. CONTRACTOR TO COORDINATE RELOCATIONS WITH EACH UTILITY AGENCY BEFORE CONSTRUCTION/RELOCATION BEGINS.

SEQUENCE OF CONSTRUCTION:

1. MAINTAIN PHASE 1 STORMWATER BMPS.
2. INSTALL SITE GRADING AND STORMWATER INFRASTRUCTURE.
3. AS STORM DRAIN INFRASTRUCTURE IS INSTALLED, INCORPORATE INLET PROTECTION AT ALL SURFACE INLETS.
4. INSTALL SEWER INFRASTRUCTURE.
5. UPON COMPLETION OF STORM DRAIN AND SEWER INFRASTRUCTURE WITH APPROVAL BY CO, CONTRACTOR MAY BEGIN CONSTRUCTION OF SITE STRUCTURES, SIDEWALKS, AND PAVEMENTS.
6. FINE GRADING OF SITE.
7. PERMANENT/FINAL STABILIZATION (SEE LANDSCAPE PLANS).
8. MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES MUST CONTINUE UNTIL THE SITE IS PERMANENTLY STABILIZED.
9. ONLY AFTER SITE HAS BEEN PERMANENTLY STABILIZED MAY EROSION AND SEDIMENT CONTROL PRACTICES BE REMOVED FROM THE SITE

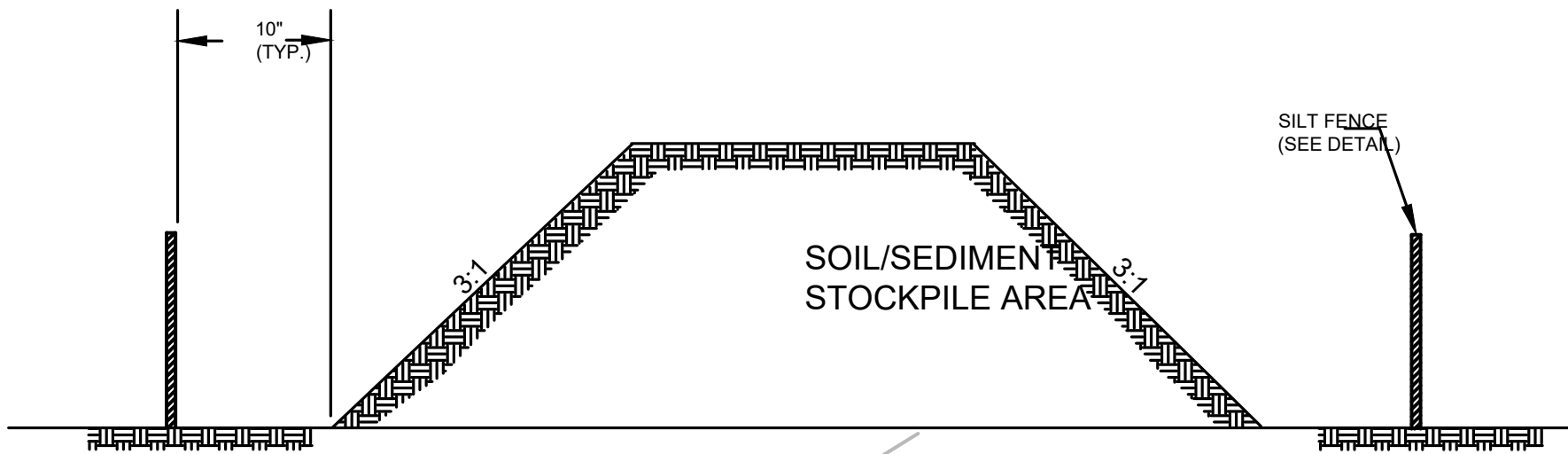
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	TECH. REVIEW:			
	DATE:			



- NOTES:
1. ABOVE IS GENERAL INSTALLATION PROCEDURES FOR NORTH AMERICAN GREEN ROLLED EROSION CONTROL PRODUCTS (RECD). CONTRACTOR SHALL FOLLOW MANUFACTURER OF EROSION CONTROL MATTING'S INSTALLATION AND STANDARDS TO ASSURE RECP IS CORRECTLY INSTALLED.

EROSION CONTROL MATTING DETAIL

NOT TO SCALE

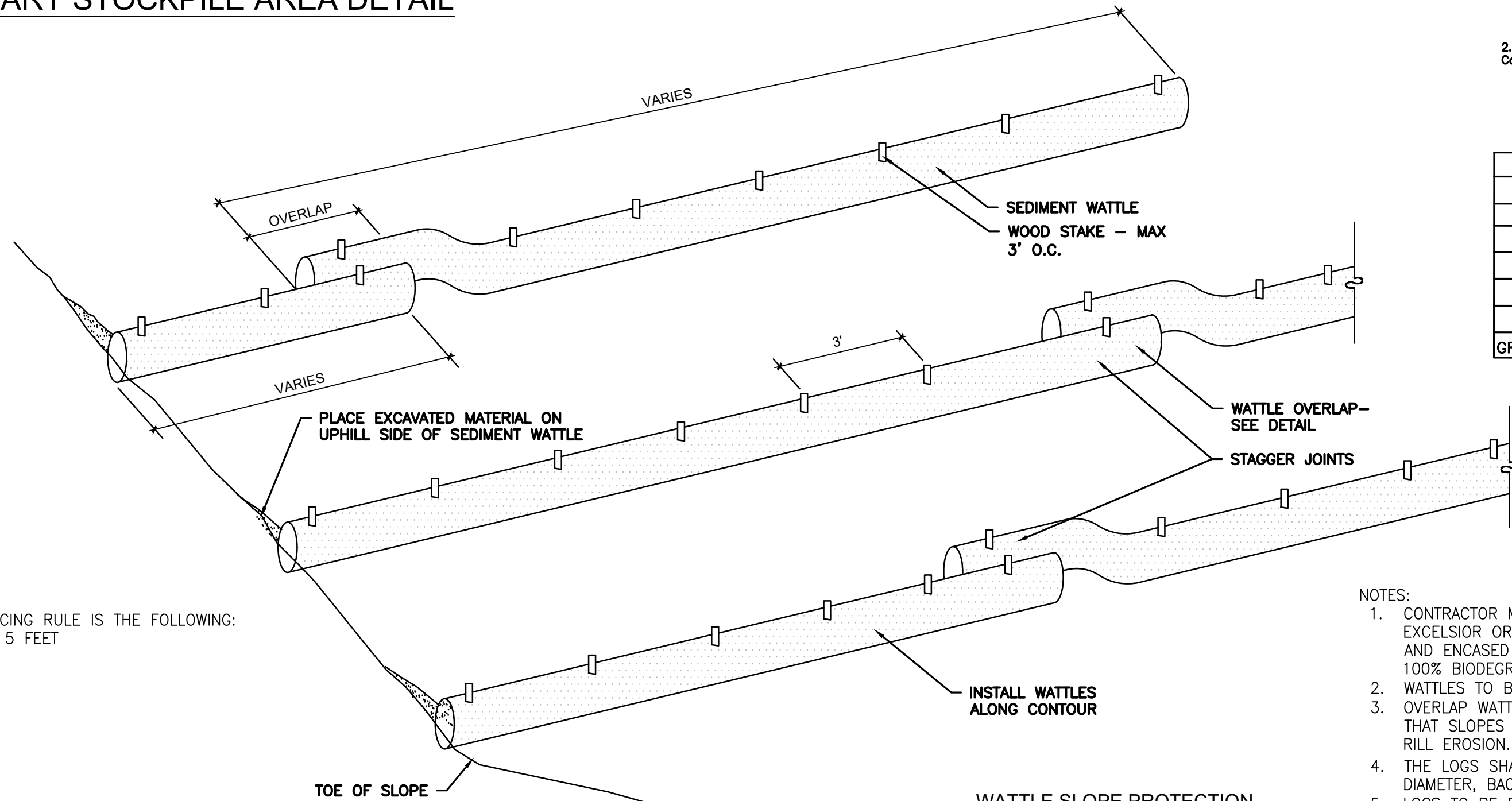


NOTES:

1. SILT FENCE TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE, OR IF STOCKPILE AREA IS LOCATED ON/NEAR A SLOP THE SILT FENCE IS TO EXTEND ALONG CONTOURS OF THE DOWN-GRADIENT AREA.
2. IF STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, TEMPORARY STABILIZATION MEASURES MUST BE IMPLEMENTED.
3. SILT FENCE SHALL BE MAINTAINED UNTIL STOCKPILE AREA HAS EITHER BEEN REMOVED OR PERMANENTLY STABILIZED.
4. THE KEY TO FUNCTIONAL TEMPORARY STOCKPILE AREAS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

TEMPORARY STOCKPILE AREA DETAIL

NOT TO SCALE

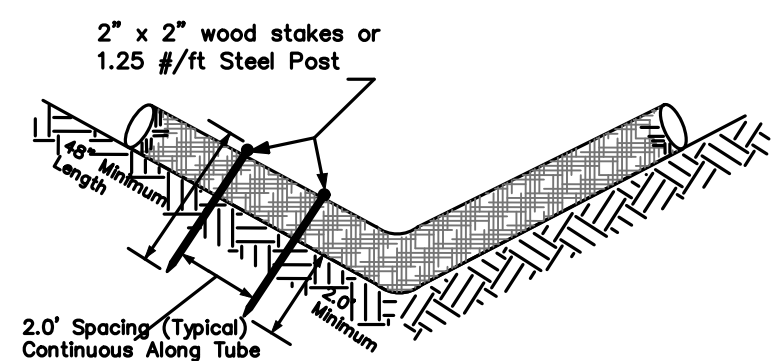


THE GENERAL SPACING RULE IS THE FOLLOWING:

- 1:1 SLOPE=EVERY 5 FEET
2:1 TO 1:1=10'
3:1 TO 2:1=15'
4:1 TO 3:1=20'
5:1 TO 4:1=25'
6:1 TO 5:1=50'

WATTLE EROSION CONTROL DETAIL

NOT TO SCALE



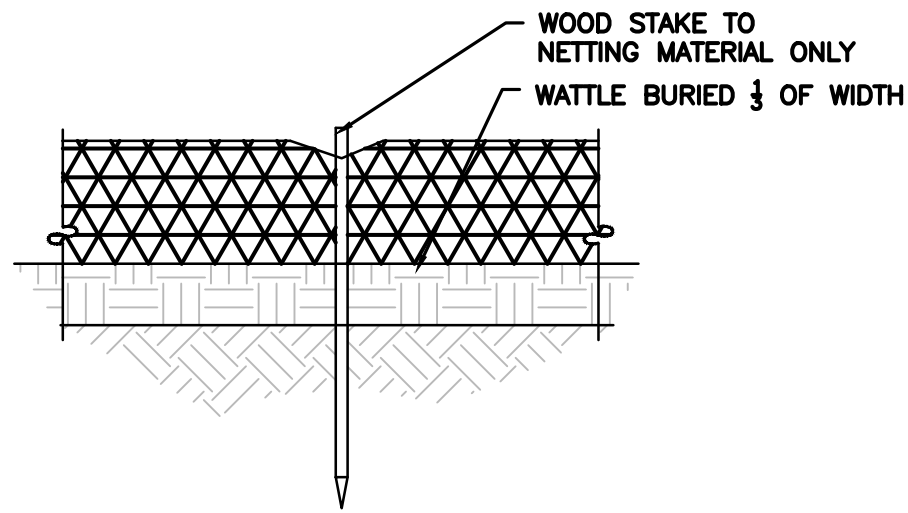
WATTLE DITCH SPACING

SLOPE	MAX. SEDIMENT TUBE SPACING
LESS THAN 2%	150- FEET
2%	100- FEET
3%	75- FEET
4%	50- FEET
5%	40- FEET
6%	30- FEET
GREATER THAN 6%	25- FEET

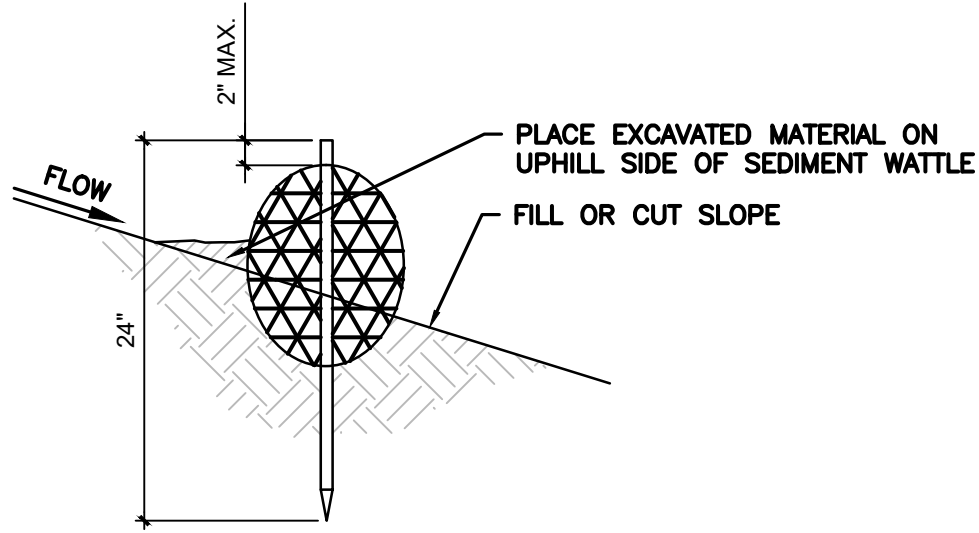
WATTLE DITCH INSTALLATION

NOTES:

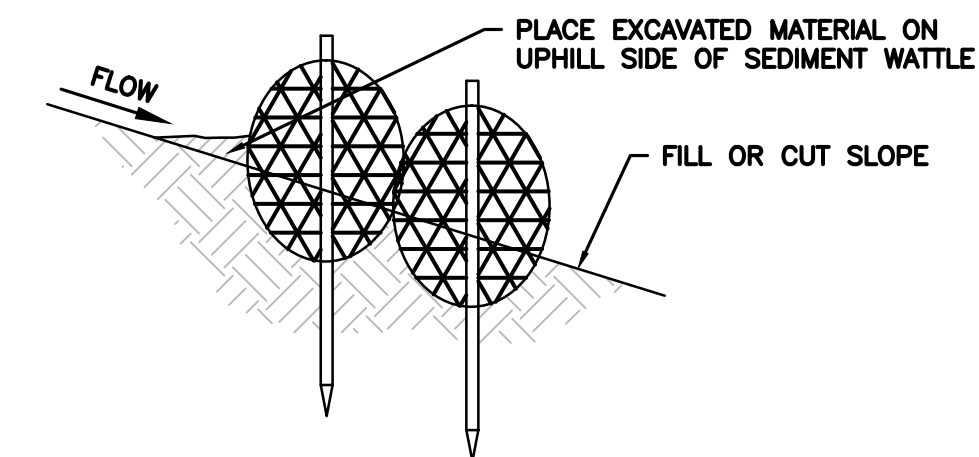
1. CONTRACTOR MUST FURNISH FIBER ROLLS OF CURLED EXCELSIOR OR COIR FIBER ROLLED INTO A CYLINDRICAL SHAPE AND ENCASED IN A TUBULAR NETTING MADE OF NATURAL, 100% BIODEGRADABLE MATERIAL.
2. WATTLES TO BE 9" OR 12" DIAMETER.
3. OVERLAP WATTLES BY APPROXIMATELY 3 FEET TO ENSURE THAT SLOPES ARE ADEQUATELY PROTECTED FROM SHEET AND RILL EROSION.
4. THE LOGS SHALL BE TRENCHED IN A MINIMUM OF 1/3 OF THEIR DIAMETER, BACKFILLED ON THE UPHILL SIDE.
5. LOGS TO BE PEGGED EVERY 3' WITH 24" WOODEN STAKES 1"x1" (OR LARGER) DRIVEN WITH A MAXIMUM OF 2" PROTRUDING FROM THE TOP OF THE LOGS. IT IS PREFERRED THAT STAKES BE FLUSH WITH TOP OF LOG.
6. INSTALL EROSION CONTROL WATTLES PER MANUFACTURER'S SPECIFICATIONS.



WATTLE JOINT DETAIL

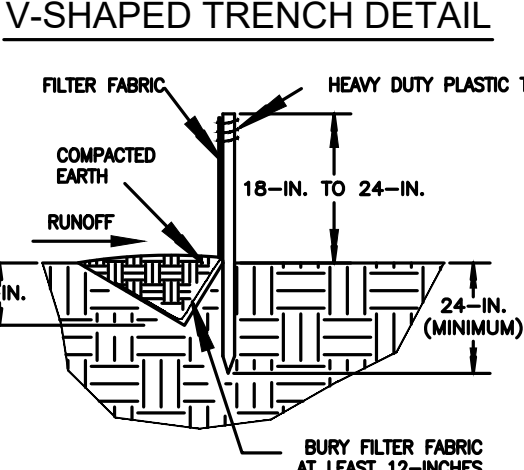
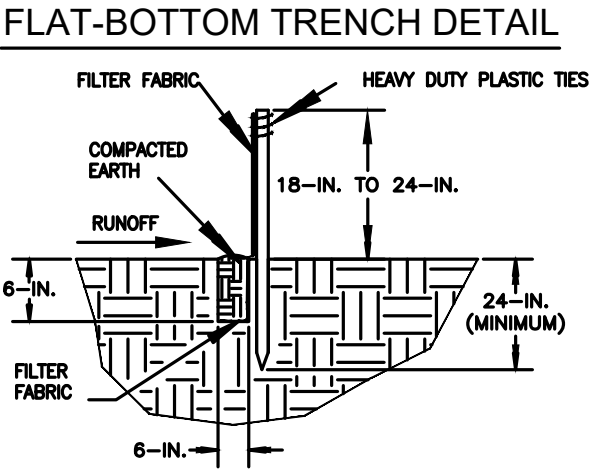
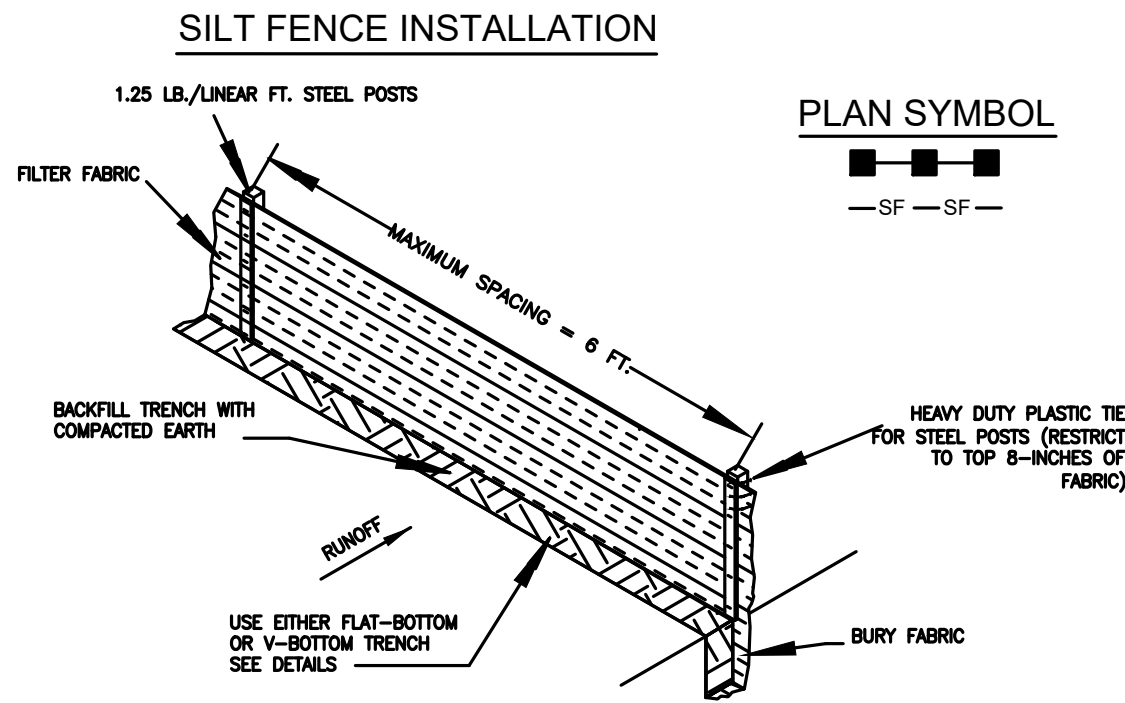


STAKE DETAIL



WATTLE OVERLAP DETAIL

DESIGNED: JTP	SUB SHEET NO. C2.07	TITLE OF SHEET EROSION & SEDIMENT CONTROL DETAILS 1	DRAWING NO. 161
CADD: JTP			160151
TECH. REVIEW: KV			PMIS/PKG NO. 251144B
DATE: 11/13/2020			SHEET
		NPS DSC CHRI SALT RIVER VC	--- OF XXX

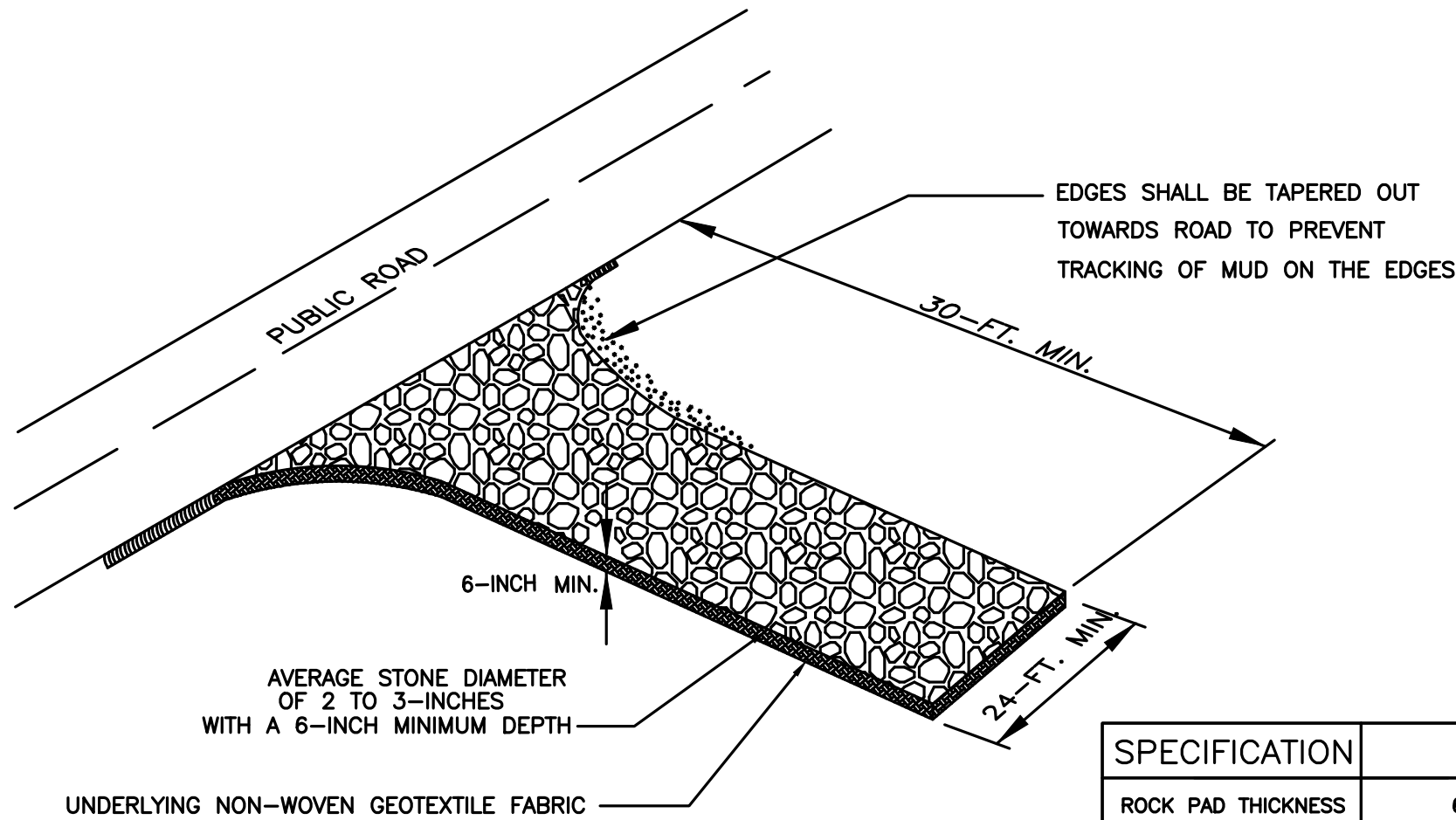


SILT FENCE - GENERAL NOTES

- DO NOT PLACE SILT FENCE ACROSS CHANNELS OR IN OTHER AREAS SUBJECT TO CONCENTRATED FLOWS. SILT FENCE SHOULD NOT BE USED AS A VELOCITY CONTROL BMP. CONCENTRATED FLOWS ARE ANY FLOWS GREATER THAN 0.5 CFS.
- MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE SILT FENCE SHALL BE 100-Feet.
- MAXIMUM SLOPE STEEPNESS (NORMAL [PERPENDICULAR] TO THE FENCE LINE) SHALL BE 2:1.
- SILT FENCE JOINTS, WHEN NECESSARY, SHALL BE COMPLETED BY ONE OF THE FOLLOWING OPTIONS:
 - WRAP EACH FABRIC TOGETHER AT A SUPPORT POST WITH BOTH ENDS FASTENED TO THE POST, WITH A 1-FOOT MINIMUM OVERLAP;
 - OVERLAP SILT FENCE BY INSTALLING 3-Feet PASSED THE SUPPORT POST TO WHICH THE NEW SILT FENCE ROLL IS ATTACHED. ATTACH OLD ROLL TO NEW ROLL WITH HEAVY-DUTY PLASTIC TIES; OR,
 - OVERLAP ENTIRE WIDTH OF EACH SILT FENCE ROLL FROM ONE SUPPORT POST TO THE NEXT SUPPORT POST.
- ATTACH FILTER FABRIC TO THE STEEL POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED WITHIN THE TOP 8-INCHES OF THE FABRIC.
- INSTALL THE SILT FENCE PERPENDICULAR TO THE DIRECTION OF THE STORMWATER FLOW AND PLACE THE SILT FENCE THE PROPER DISTANCE FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEANOUT.
- INSTALL SILT FENCE CHECKS (TIE-BACKS) EVERY 50-100 FEET, DEPENDENT ON SLOPE, ALONG SILT FENCE THAT IS INSTALLED WITH SLOPE AND WHERE CONCENTRATED FLOWS ARE EXPECTED OR ARE DOCUMENTED ALONG THE PROPOSED/INSTALLED SILT FENCE.

SILT FENCE DETAILS AND NOTES

NOT TO SCALE



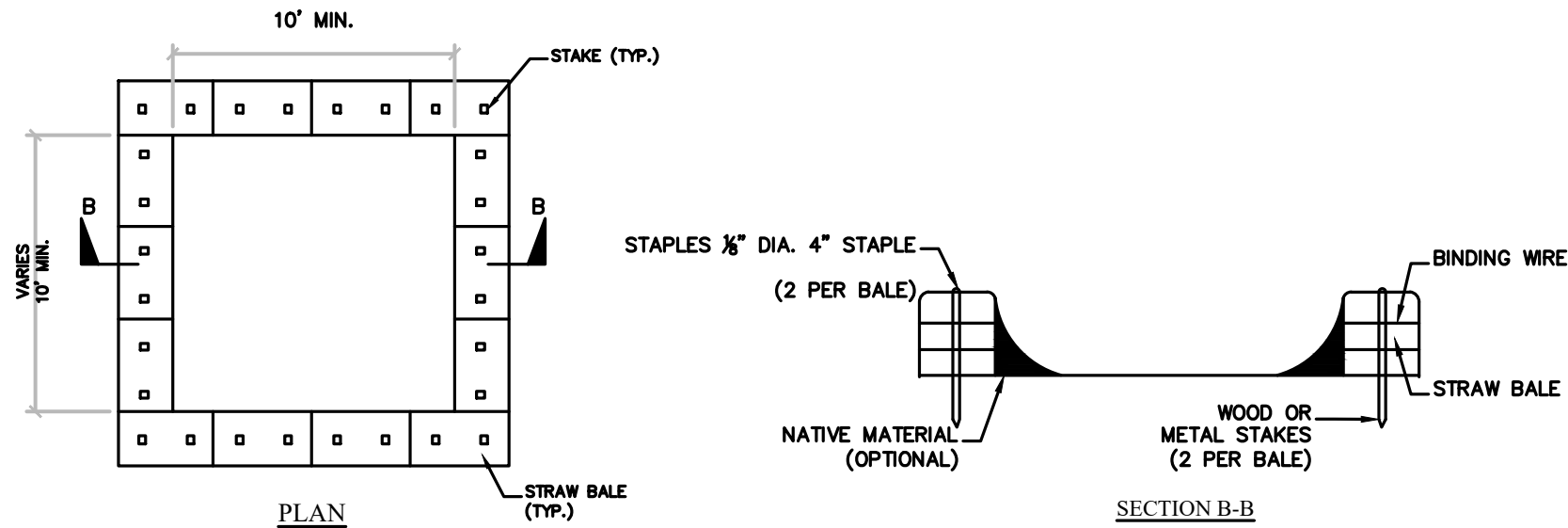
SPECIFICATION	SIZE
ROCK PAD THICKNESS	6 INCHES
ROCK PAD WIDTH	24 FEET
ROCK PAD LENGTH	30 FEET
ROCK PAD STONE SIZE	D = 2-3 INCHES

CONSTRUCTION ENTRANCE - GENERAL NOTES

- STABILIZED CONSTRUCTION ENTRANCES SHOULD BE USED AT ALL POINTS WHERE TRAFFIC WILL EGRESS/INGRESS A CONSTRUCTION SITE ONTO A PUBLIC ROAD OR ANY IMPERVIOUS SURFACES, SUCH AS PARKING LOTS.
- INSTALL A NON-WOVEN GEOTEXTILE FABRIC PRIOR TO PLACING ANY STONE.
- INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.
- THE ENTRANCE SHALL CONSIST OF 2-INCH TO 3-INCH D50 STONE PLACED AT A MINIMUM DEPTH OF 6-INCHES.
- MINIMUM DIMENSIONS OF THE ENTRANCE SHALL BE 24-Feet, AND MAY BE MODIFIED AS NECESSARY TO ACCOMMODATE SITE CONSTRAINTS.
- THE EDGES OF THE ENTRANCE SHALL BE TAPERED OUT TOWARDS THE ROAD TO PREVENT TRACKING AT THE EDGE OF THE ENTRANCE.
- DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN OR OTHER SEDIMENT TRAPPING STRUCTURE.
- LIMESTONE MAY NOT BE USED FOR THE STONE PAD.

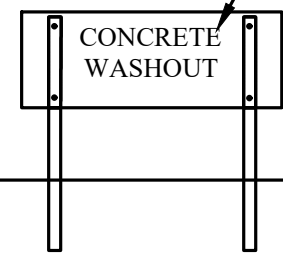
CONSTR. ENTRANCE - INSPECTION & MAINTENANCE

- THE KEY TO FUNCTIONAL CONSTRUCTION ENTRANCES IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.
- REGULAR INSPECTIONS OF CONSTRUCTION ENTRANCES SHALL BE CONDUCTED ONCE EVERY CALENDAR WEEK AND, AS RECOMMENDED, WITHIN 24-HOURS AFTER EACH RAINFALL EVEN THAT PRODUCES 1/2-INCH OR MORE OF PRECIPITATION.
- DURING REGULAR INSPECTIONS, CHECK FOR MUD AND SEDIMENT BUILDUP AND PAD INTEGRITY. INSPECTION FREQUENCIES MAY NEED TO BE MORE FREQUENT DURING LONG PERIODS OF WET WEATHER.
- RESHAPE THE STONE PAD AS NECESSARY FOR DRAINAGE AND RUNOFF CONTROL.
- WASH OR REPLACE STONES AS NEEDED AND AS DIRECTED BY SITE INSPECTOR. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE THE AMOUNT OF MUD BEING CARRIED OFF-SITE BY VEHICLES. FREQUENT WASHING WILL EXTEND THE USEFUL LIFE OF STONE PAD.
- IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO ADJACENT IMPERVIOUS SURFACES BY BRUSHING OR SWEEPING. FLUSHING SHOULD ONLY BE USED WHEN THE WATER CAN BE DISCHARGED TO A SEDIMENT TRAP OR BASIN.
- DURING MAINTENANCE ACTIVITIES, ANY BROKEN PAVEMENT SHOULD BE REPAIRED IMMEDIATELY.
- CONSTRUCTION ENTRANCES SHOULD BE REMOVED AFTER THE SITE HAS REACHED FINAL STABILIZATION. PERMANENT VEGETATION SHOULD REPLACE AREAS FROM WHICH CONSTRUCTION ENTRANCES HAVE BEEN REMOVED, UNLESS AREA WILL BE CONVERTED TO AN IMPERVIOUS SURFACE TO SERVE POST-CONSTRUCTION.



NOTES:

LETTERS A MINIMUM OF 5" IN HEIGHT

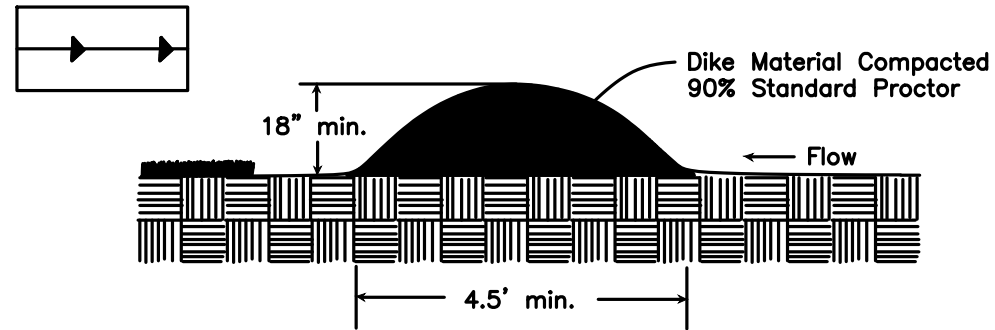


CONCRETE WASHOUT SIGN DETAIL

- ACTUAL LAYOUT DETERMINED IN FIELD.
- INSTALL CONCRETE WASHOUT SIGN (24"x24", MINIMUM) WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
- TEMPORARY WASHOUT AREA MUST BE AT LEAST 50' FROM A STORM DRAIN, CREEK BANK OR PERIMETER CONTROL.
- CLEAN OUT CONCRETE WASHOUT AREA WHEN 50% FULL.
- THE KEY TO FUNCTIONAL CONCRETE WASHOUTS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR CLEAN OUT.
- SILT FENCE SHALL BE INSTALLED AROUND PERIMETER OF CONCRETE WASHOUT AREA EXCEPT FOR THE SIDE UTILIZED FOR ACCESSING THE WASHOUT.
- A ROCK CONSTRUCTION ENTRANCE MAY BE NECESSARY ALONG ONE SIDE OF THE WASHOUT TO PROVIDE VEHICLE ACCESS.

CONCRETE WASHOUT DETAILS

NOT TO SCALE



INSTALLATION

SLOPES SHALL BE STABILIZED IMMEDIATELY USING VEGETATION, SOD, AND EROSION CONTROL BLANKETS OR TURF REINFORCEMENT MATS TO PREVENT EROSION.

THE UPSLOPE SIDE OF THE DIKE SHOULD PROVIDE POSITIVE DRAINAGE SO NO EROSION OCCURS AT THE OUTLET. PROVIDE ENERGY DISSIPATION MEASURES AS NECESSARY. SEDIMENT-LADEN RUNOFF MUST BE RELEASED THROUGH A SEDIMENT TRAPPING FACILITY.

SEDIMENT-LADEN RUNOFF SHALL BE DIRECTED TO A SEDIMENT TRAPPING FACILITY.

MINIMIZE CONSTRUCTION TRAFFIC OVER DIVERSION DIKES AND BERMS.

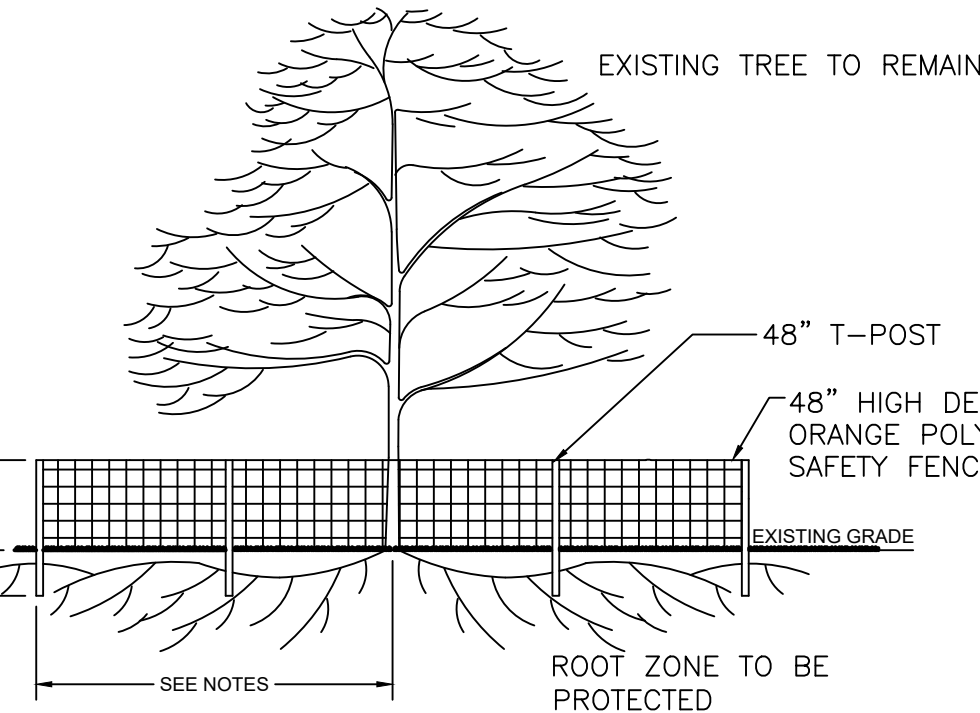
INSPECTION AND MAINTENANCE:

DIKES AND BERMS SHOULD BE INSPECTED, EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2-INCHES OR MORE OF PRECIPITATION AND REPAIRS MADE AS NECESSARY.

DAMAGE CAUSED BY CONSTRUCTION TRAFFIC OR OTHER ACTIVITY MUST BE REPAIRED BEFORE THE END OF EACH WORKING DAY.

DIVERSION DIKE

NOT TO SCALE



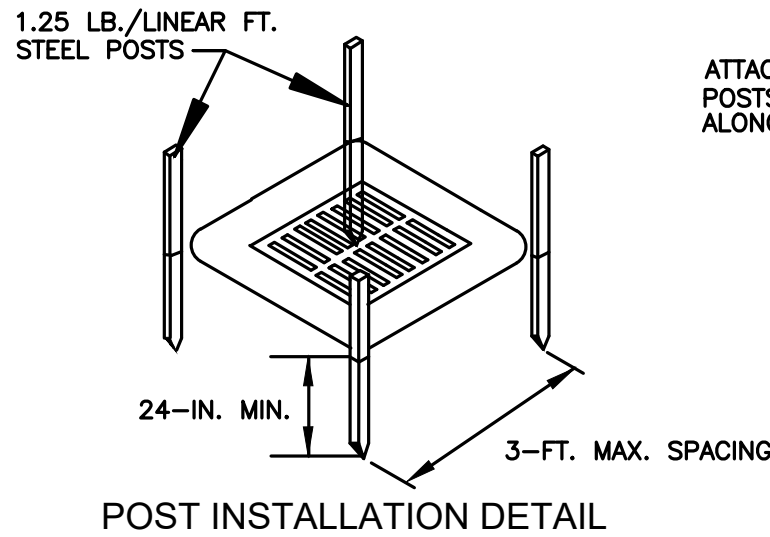
NOTES:

- ALL TREE PROTECTION BARRICADES MUST HAVE TWO HORIZONTAL CROSS RAILS.
- BARRICADES SHALL BE ERECTED AT A MINIMUM DISTANCE FROM THE BASE OF PROTECTED TREES AND GRAND TREES ACCORDING TO THE FOLLOWING STANDARDS.
- ALL GRADING AROUND PROTECTED TREES IS TO BE DONE BY HAND. CONTRACTOR SHALL NOT OPERATE HEAVY EQUIPMENT WITHIN THE TREE PROTECTION BARRIERS.

TREE PROTECTION DETAILS

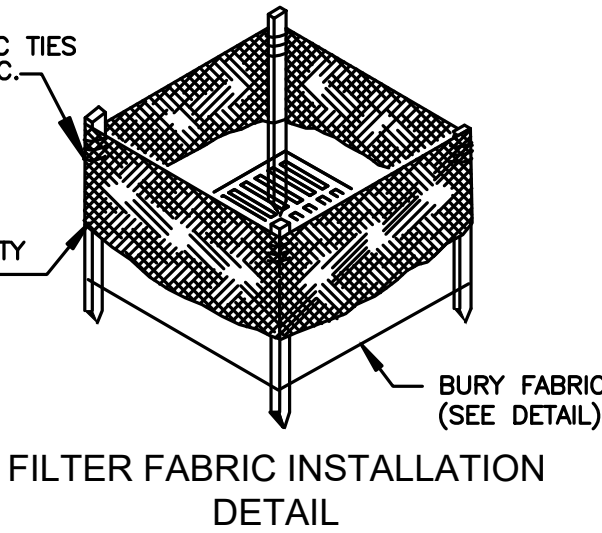
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DESIGNED: JTP	SUB SHEET NO. C2.	TITLE OF SHEET EROSION & SEDIMENT CONTROL DETAILS 2	DRAWING NO. 161 160151
CADD: JTP	08	NPS DSC CHRI SALT RIVER VC	PMIS/PKG NO. 251144B
TECH. REVIEW: KV			SHEET
DATE: 11/13/2020			OF XXX



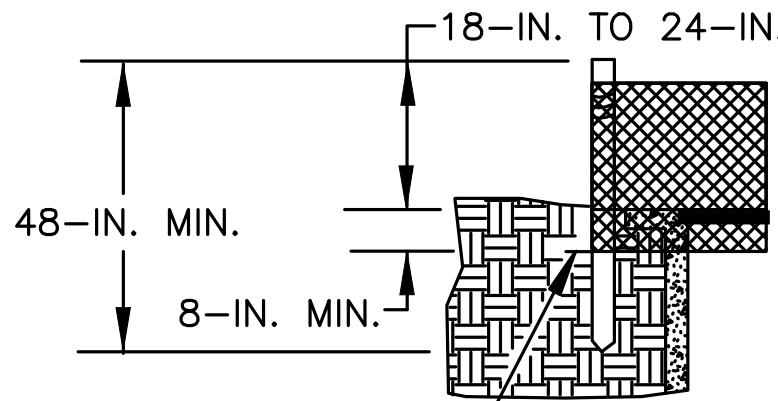
ATTACH FILTER FABRIC TO POSTS WITH HEAVY DUTY PLASTIC TIES ALONG TOP 8-INCHES OF FABRIC.

FOLD FABRIC TO OVERLAP 1 FOOT AND SECURE TO POSTS WITH HEAVY DUTY PLASTIC TIES



BURY FABRIC (SEE DETAIL)

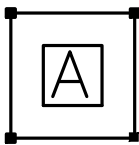
FILTER FABRIC INSTALLATION DETAIL



BURY & TRENCH MINIMUM OF 12-INCHES OF FILTER FABRIC

FILTER FABRIC BURIAL DETAIL

PLAN SYMBOL



TYPE A - FILTER FABRIC REQUIREMENTS

- Silt fence must be composed of woven geotextile filter fabric that consists of the following requirements:
 - Composed of fibers consisting of long chain synthetic polymers of at least 85% by weight of polyolefins, polyesters, or polyamides that are formed into a network such that the filaments or yarns retain dimensional stability relative to each other;
 - Free of any treatment or coating which might adversely alter its physical properties after installation;
 - Free of any defects or flaws that significantly affect its physical and/or filtering properties; and,
 - Have a minimum width of 36-inches.
- 12-inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled;
- Filter Fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
- Filter Fabric shall be installed at a minimum of 24-inches above the ground.

TYPE A - POST REQUIREMENTS

- Silt Fence posts must be 48-inch long steel posts that meet, at a minimum, the following physical characteristics:
 - Composed of a high strength steel with a minimum yield strength of 50,000 psi.
 - Include a standard "T" section with a nominal face width of 1.38-inches and a nominal "T" length of 1.48-inches.
 - Weigh 1.25 pounds per foot (\pm 8%)
- Posts shall be equipped with projections to aid in fastening of filter fabric.
- Install posts to a minimum of 24-inches. A minimum height of 1- to 2- inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
- Post spacing shall be at a maximum of 3-feet on center.

TYPE A - INSPECTION & MAINTENANCE

- The key to functional inlet protection is weekly inspections, routine maintenance, and regular sediment removal.
- Regular inspections of inlet protection shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
- Attention to sediment accumulations along the filter fabric is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
- Remove accumulated sediment when it reaches 1/3 the height of the filter fabric. When a sump is installed in front of the fabric, sediment should be removed when it fills approximately 1/3 the depth of the sump.
- Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
- Check for areas where stormwater runoff has eroded a channel beneath the filter fabric, or where the fabric has sagged or collapsed due to runoff overtopping the inlet protection.
- Check for tears within the filter fabric, areas where fabric has begun to decompose, and for any other circumstance that may render the inlet protection ineffective. Removed damaged fabric and reinstall new filter fabric immediately.
- Inlet protection structures should be removed after all the disturbed areas are permanently stabilized. Remove all construction material and sediment, and dispose of them properly. Grade the disturbed area to the elevation of the drop inlet structure crest. Stabilize all bare areas immediately.

TYPE A INLET PROTECTION DETAIL

NOT TO SCALE

This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.

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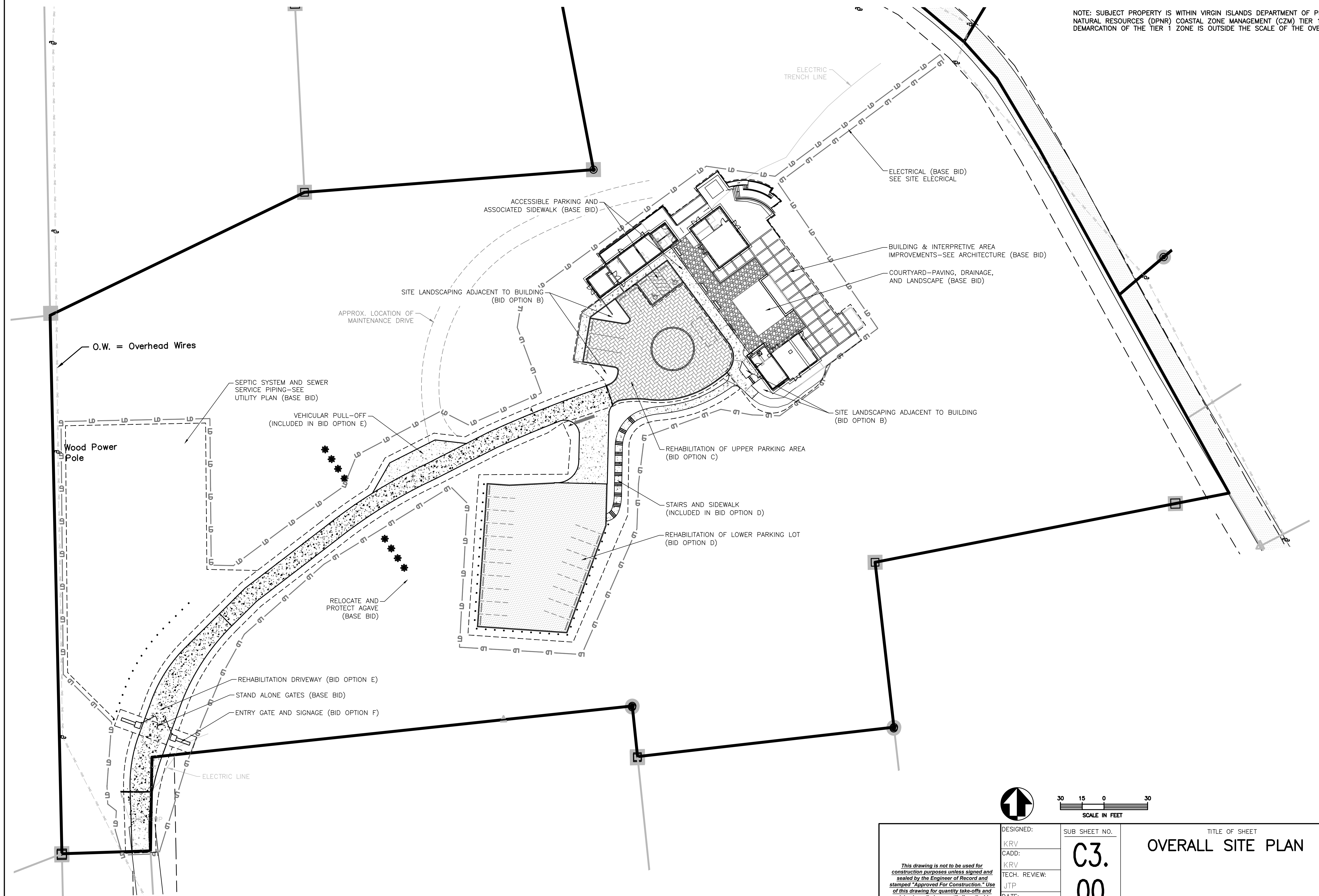
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TITLE OF SHEET
EROSION &
SEDIMENT CONTROL
DETAILS 3

NPS DSC CHRI SALT RIVER VC

DRAWING NO.
161
160151
PMIS/PKG NO.
251144B
SHEET
-- OF XXX

NOTE: SUBJECT PROPERTY IS WITHIN VIRGIN ISLANDS DEPARTMENT OF PLANNING AND NATURAL RESOURCES (DPNR) COASTAL ZONE MANAGEMENT (CZM) TIER 1 ZONE. THE DEMARCATION OF THE TIER 1 ZONE IS OUTSIDE THE SCALE OF THE OVERALL SITE PLAN.



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2021/02/11 9:04 AM By: Cavey, Shaun



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SCALE IN FEET

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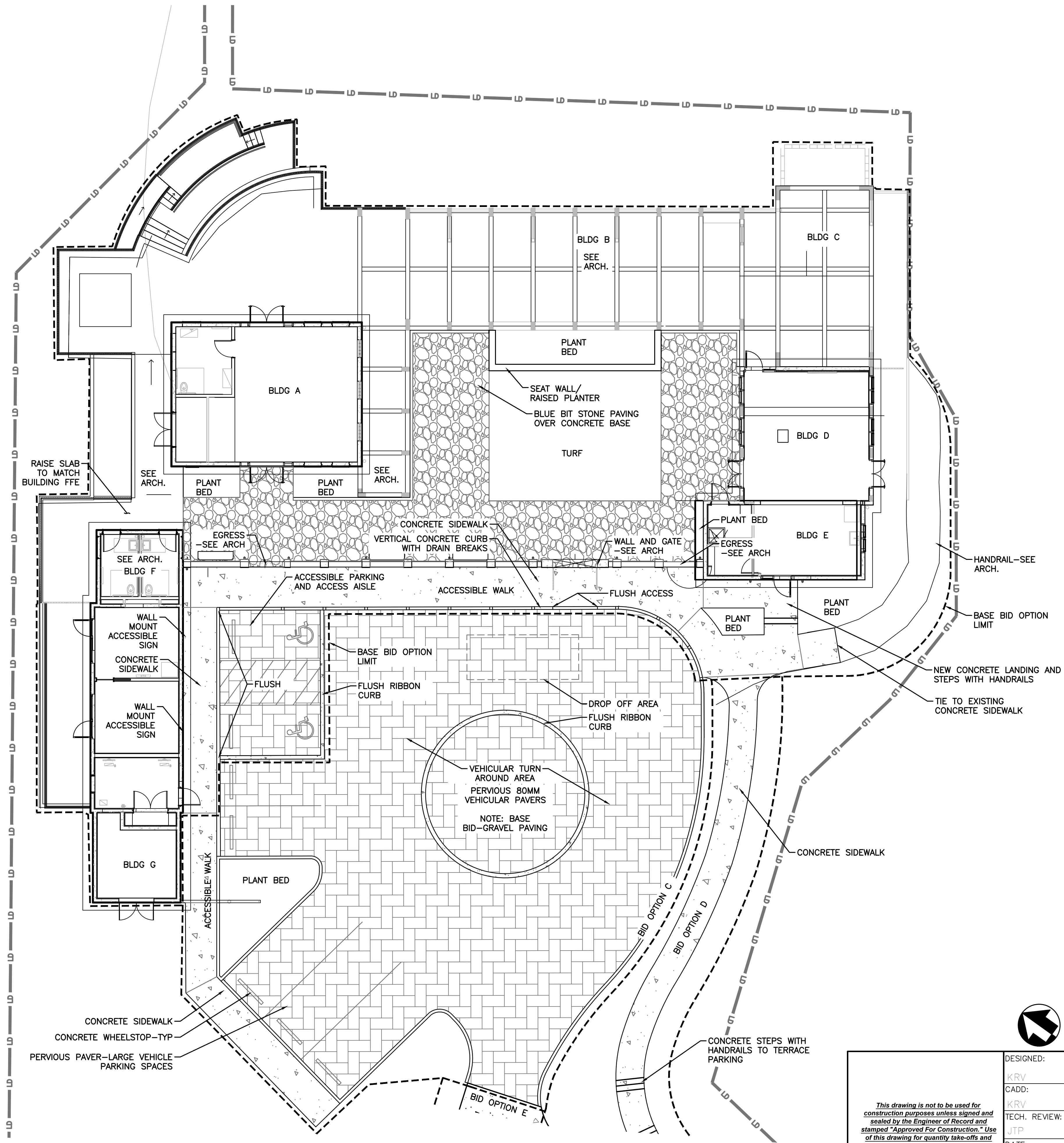
TITLE OF SHEET
OVERALL SITE PLAN

NPS DSC CHRI SALT RIVER VC

DRAWING NO.	161
	160151
MIS/PKG NO.	251144B
SHEET	
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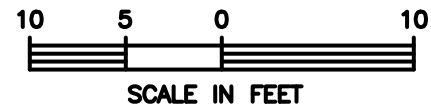
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2021/02/02 4:17 PM By: Vohngie, Kevin



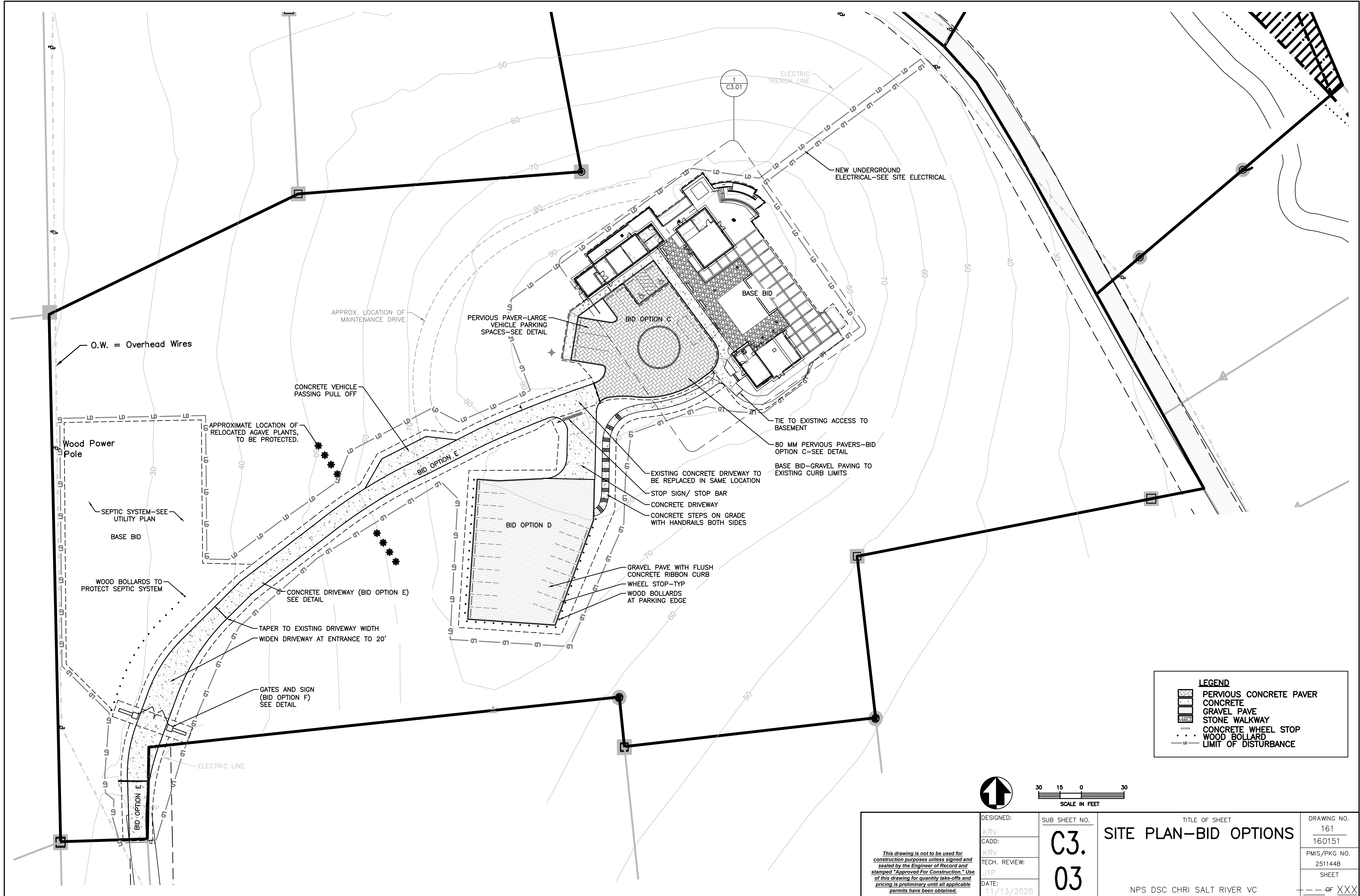
LEGEND

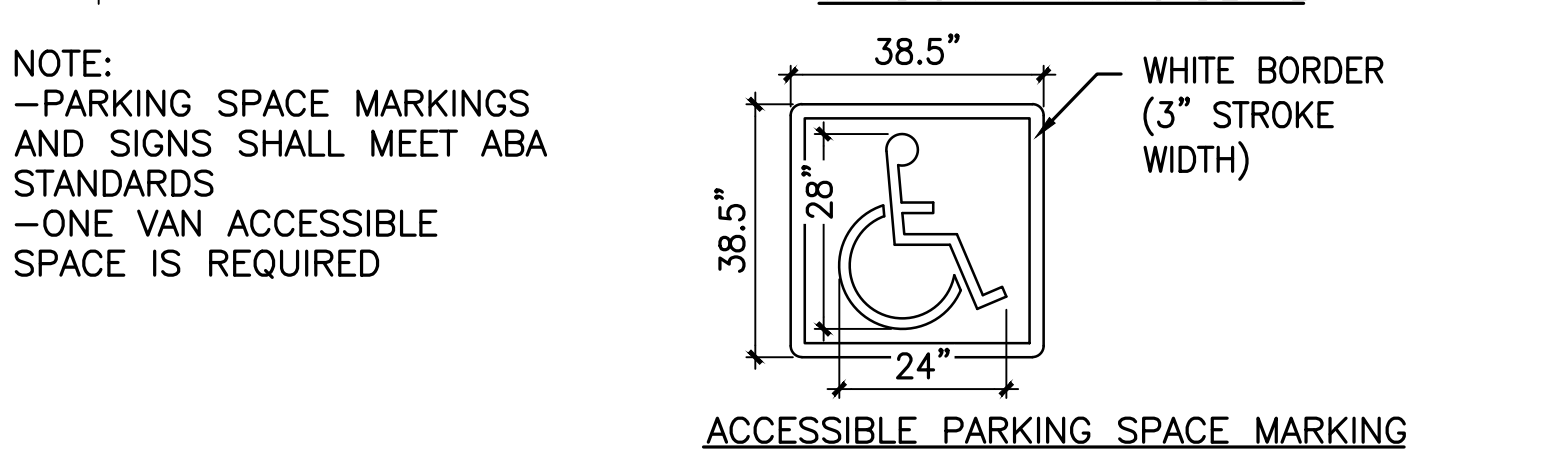
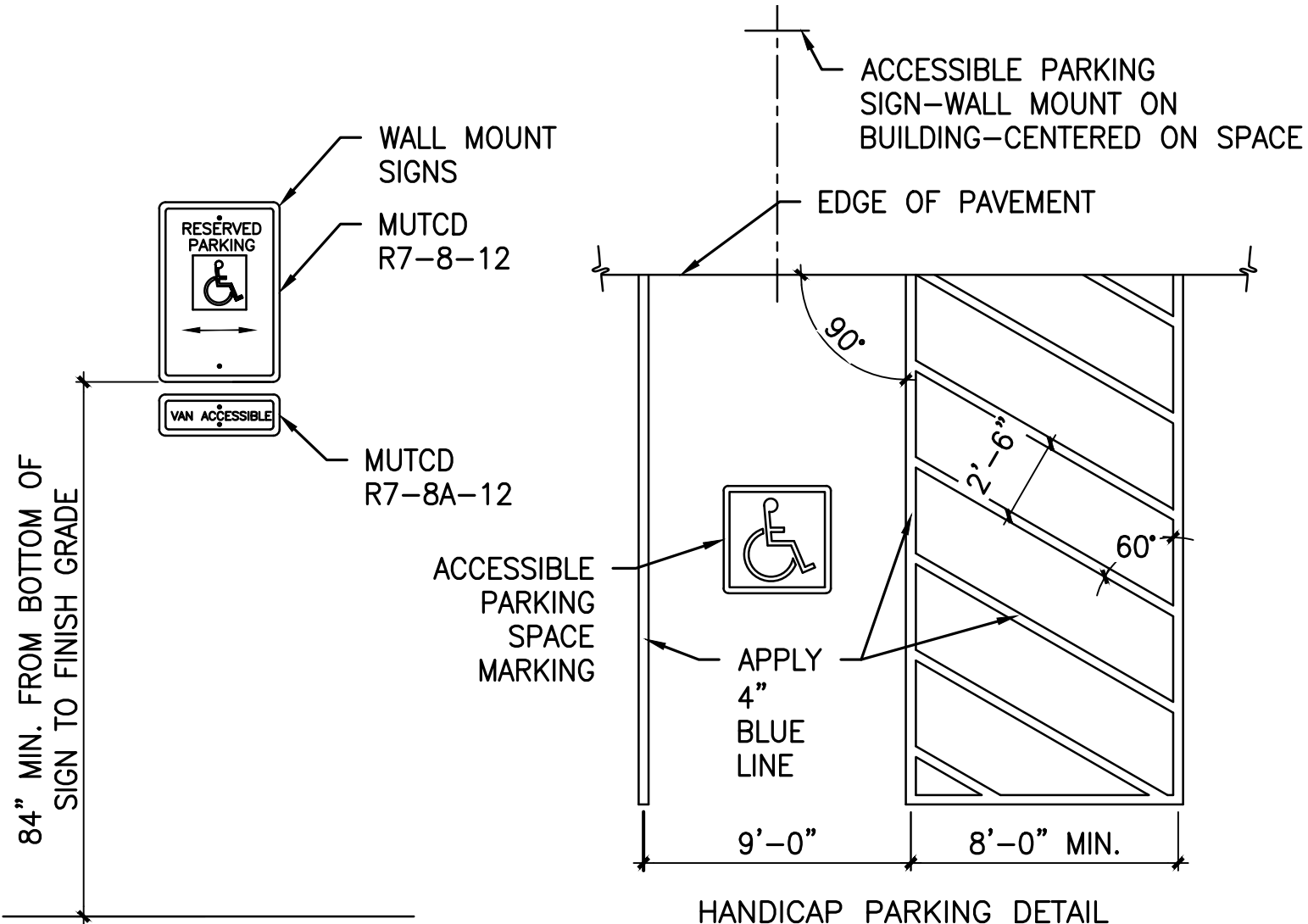
- PERVIOUS CONCRETE I
- CONCRETE
- GRAVEL PAVE
- STONE WALKWAY
- CONCRETE WHEEL STOP
- WOOD BOLLARD
- LIMIT OF DISTURBANCE



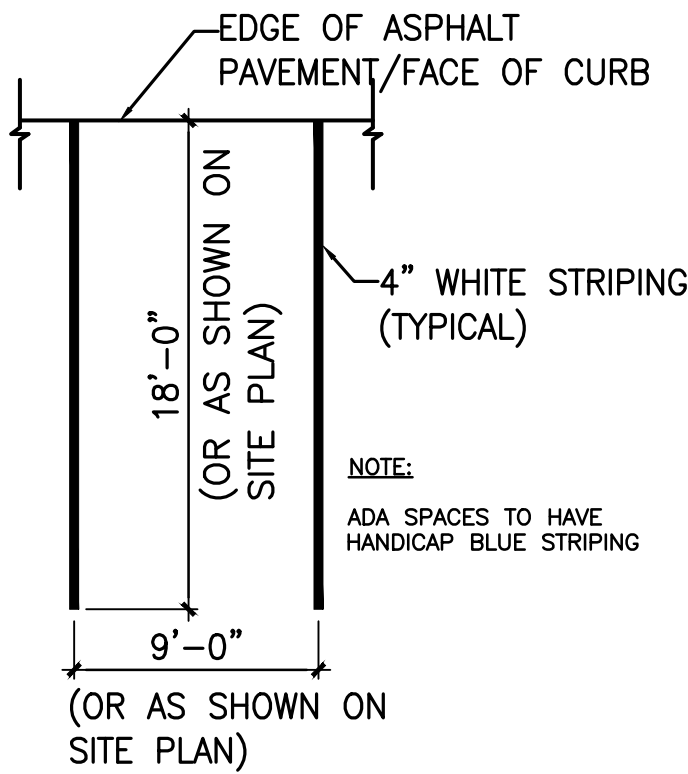
<i>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</i>	DESIGNED: KRV	SUB SHEET NO. C3.01	TITLE OF SHEET SITE ENLARGEMENT-BASE BID NPS DSC CHRI SALT RIVER VC	DRAWING NO. 161
	CADD: KRV			160151
	TECH. REVIEW: JTP			PMIS/PKG NO. 251144B
	DATE: 11/13/2020			SHEET 0 OF XXX

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2021/02/02 4:17 PM By: Vonnegle, Kevin



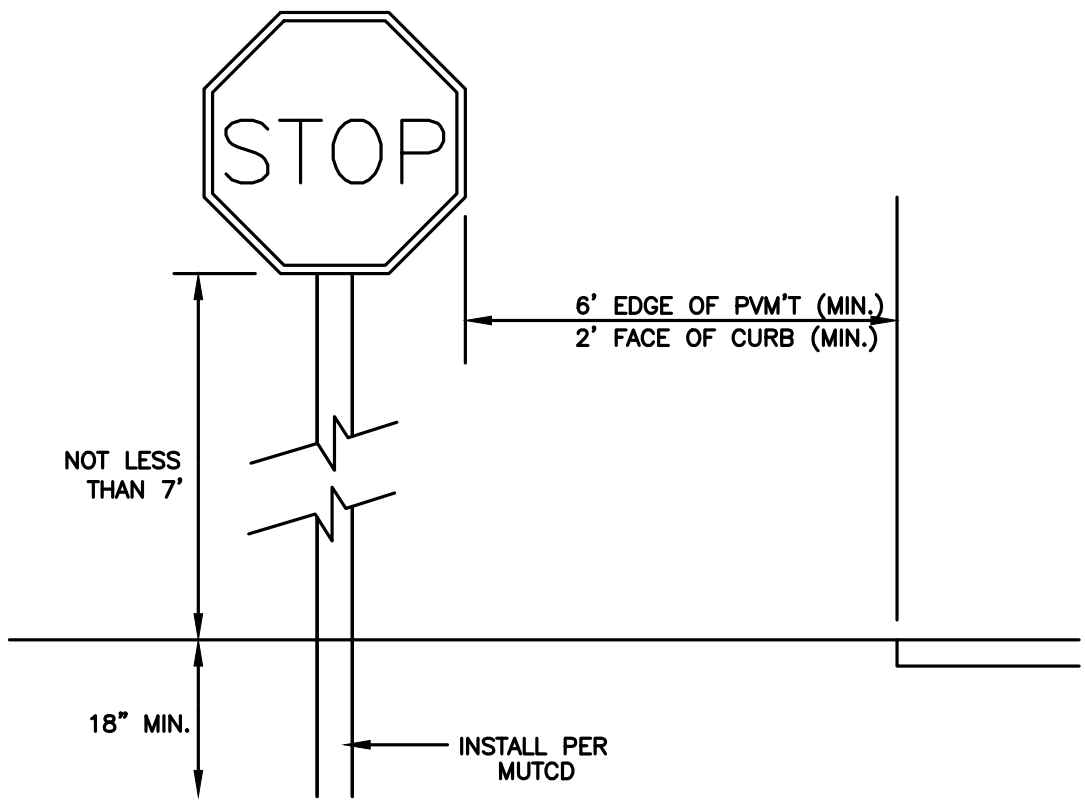


1 ACCESSIBLE PARKING DETAILS
C3.06 NOT TO SCALE



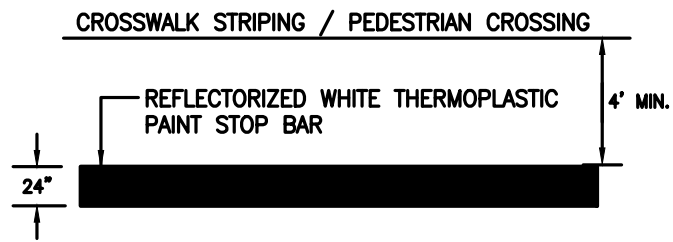
2 PARKING SPACE DETAILS
NOT TO SCALE

MUTCD SIGN NUMBER	SIGN	SIZE
R1-1	STOP	30"x30"
YIELD TO ONCOMING TRAFFIC	Yield Sign	24"x24"



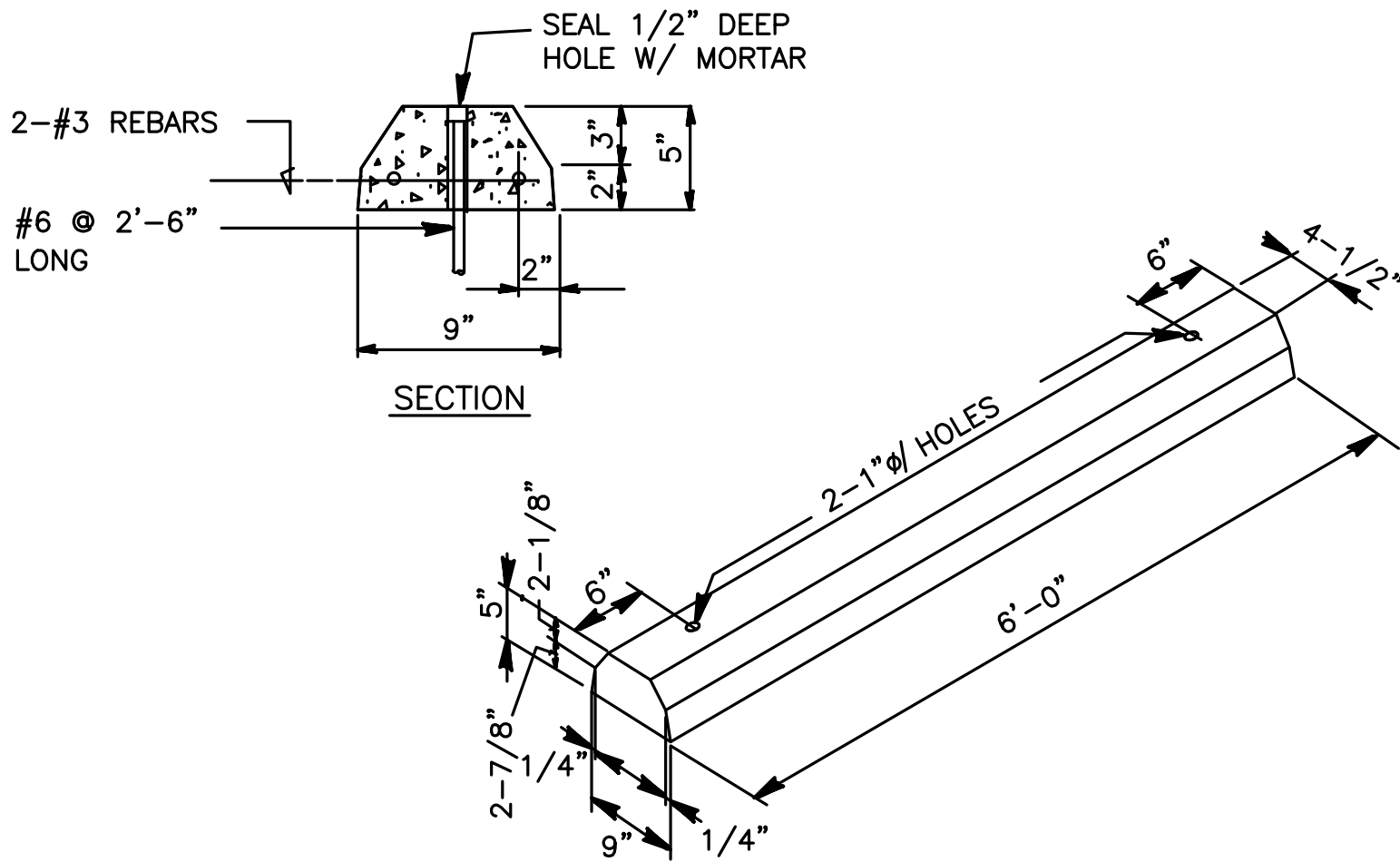
- NOTE:
- ALL SIGNS SHALL BE REFLECTORIZED MOUNTED ON GALVANIZED U-CHANNEL POSTS PER M.U.T.C.D.
 - SIGNS SHALL BE VERTICALLY MOUNTED AT RIGHT ANGLES TO THE DIRECTION OF, AND FACING, THE TRAFFIC THAT THEY ARE INTENDED TO SERVE.
 - SIGN POSTS, FOUNDATION AND MOUNTINGS SHALL BE SO CONSTRUCTED AS TO HOLD SIGNS IN PROPER AND PERMANENT POSITION, AND TO RESIST SWAYING IN THE WIND OR DISPLACEMENT BY VANDALISM.
 - ALL SIGNAGE, STRIPING, AND INSTALLATION SHALL CONFORM TO MUTCD STANDARDS AND SPECIFICATIONS.

3 ROAD SIGN DETAIL
NOT TO SCALE

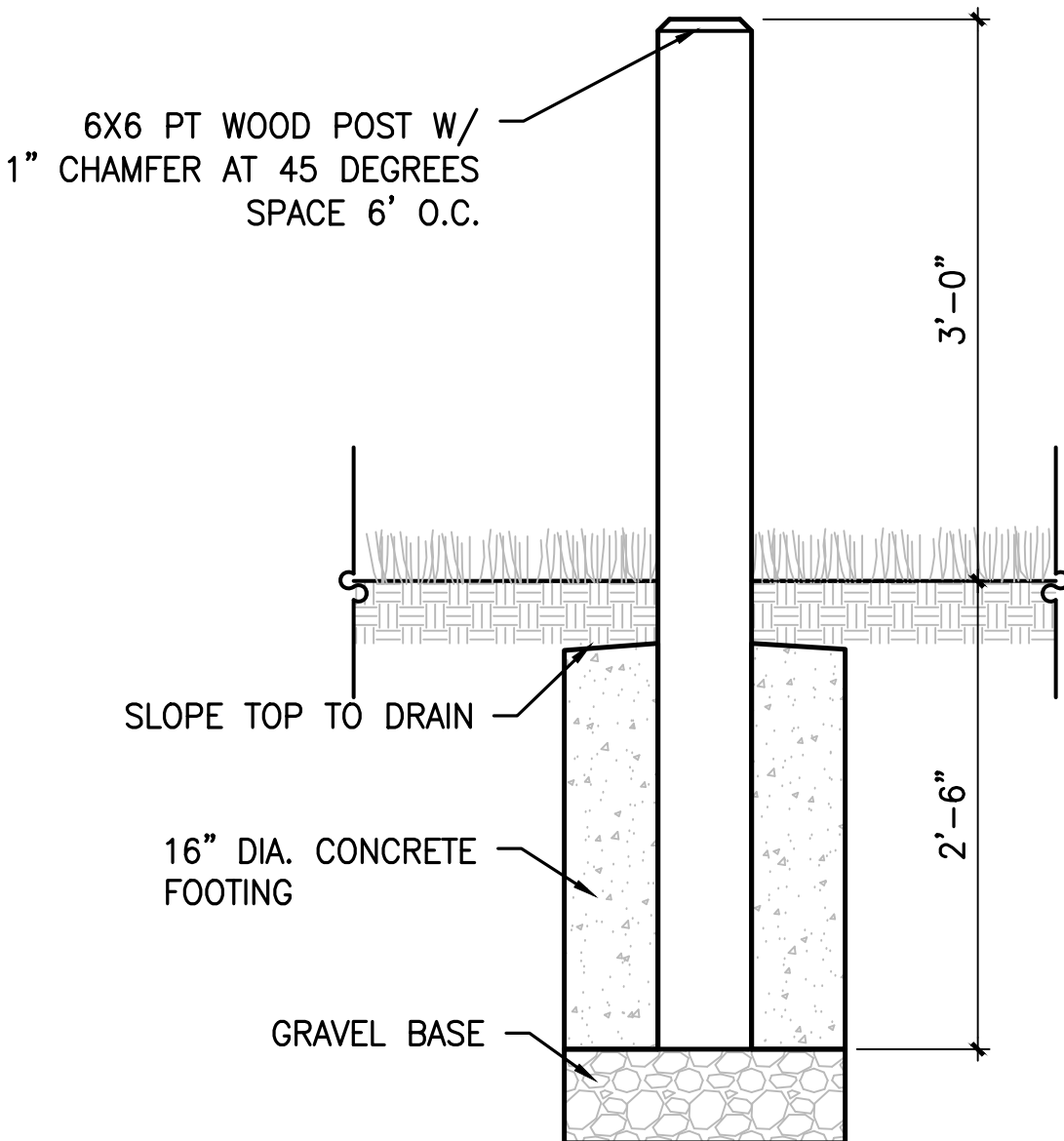


- NOTE:
- STOP BAR MATERIAL TO BE THERMOPLASTIC. COLOR TO BE WHITE.
 - PAVEMENT MARKINGS SHALL COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

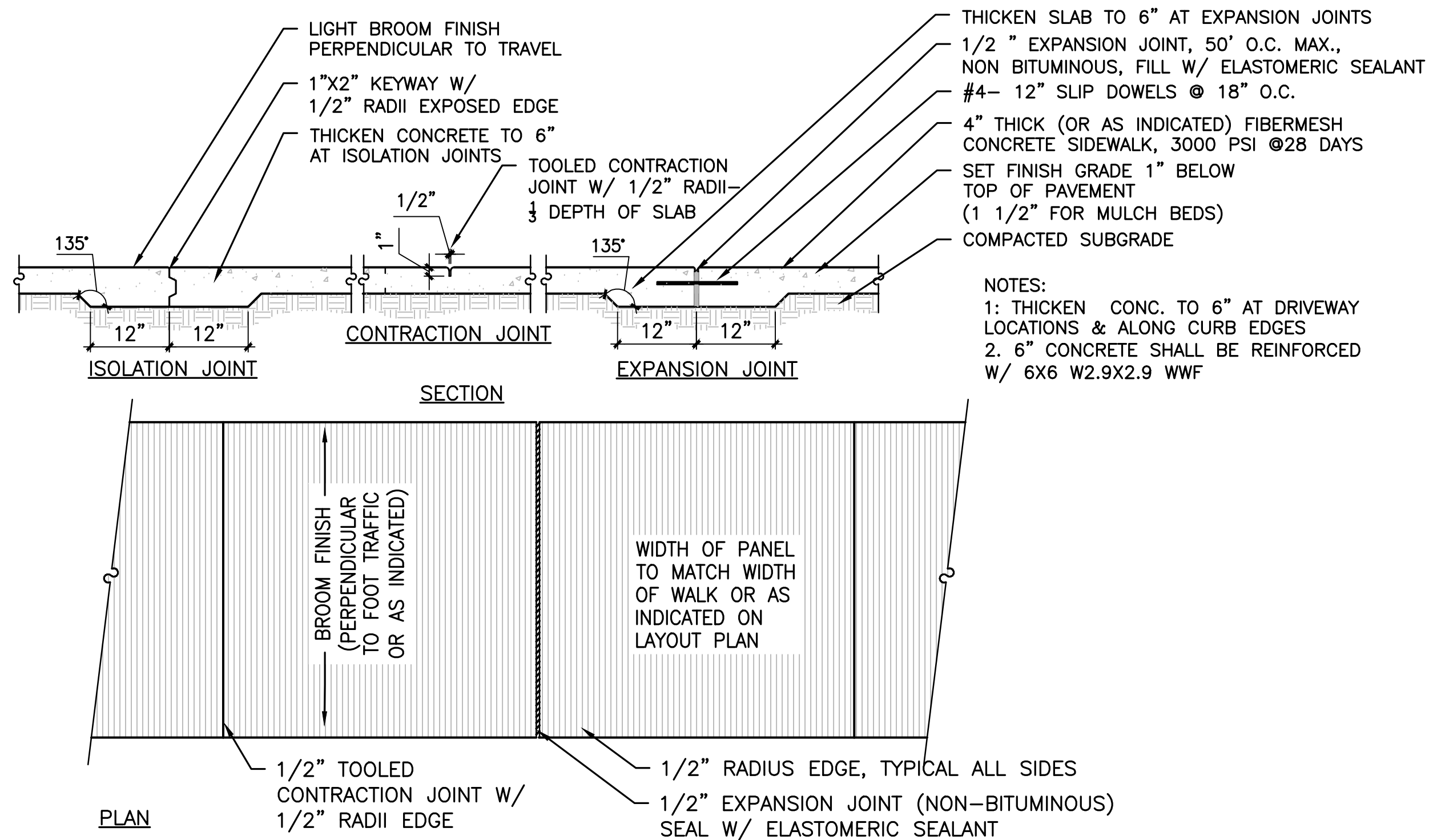
4 STOP BAR DETAIL
NOT TO SCALE



5 PRECAST WHEEL STOP
NOT TO SCALE

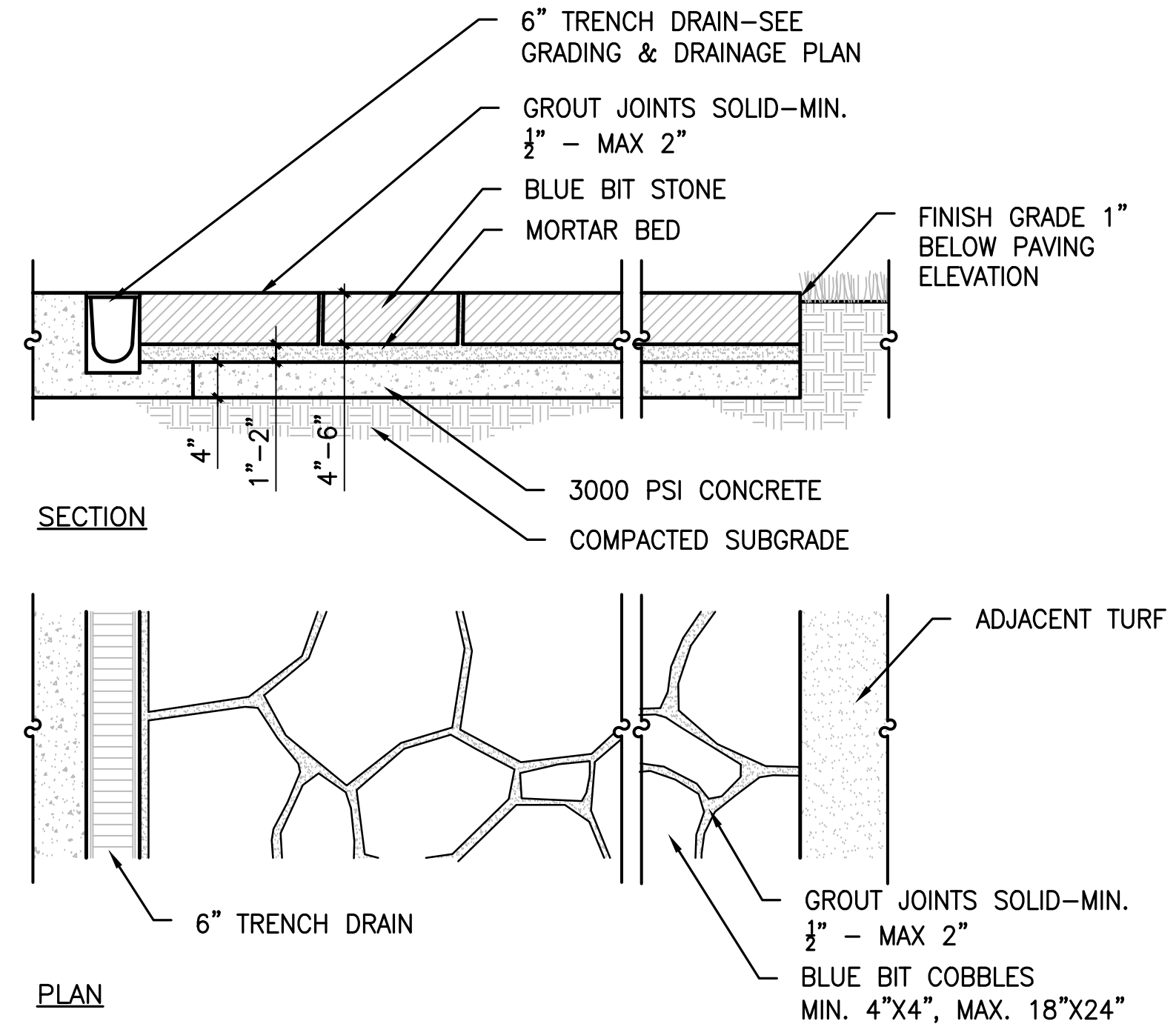


6 WOOD BOLLARD DETAIL
SCALE 1"=1'-0"

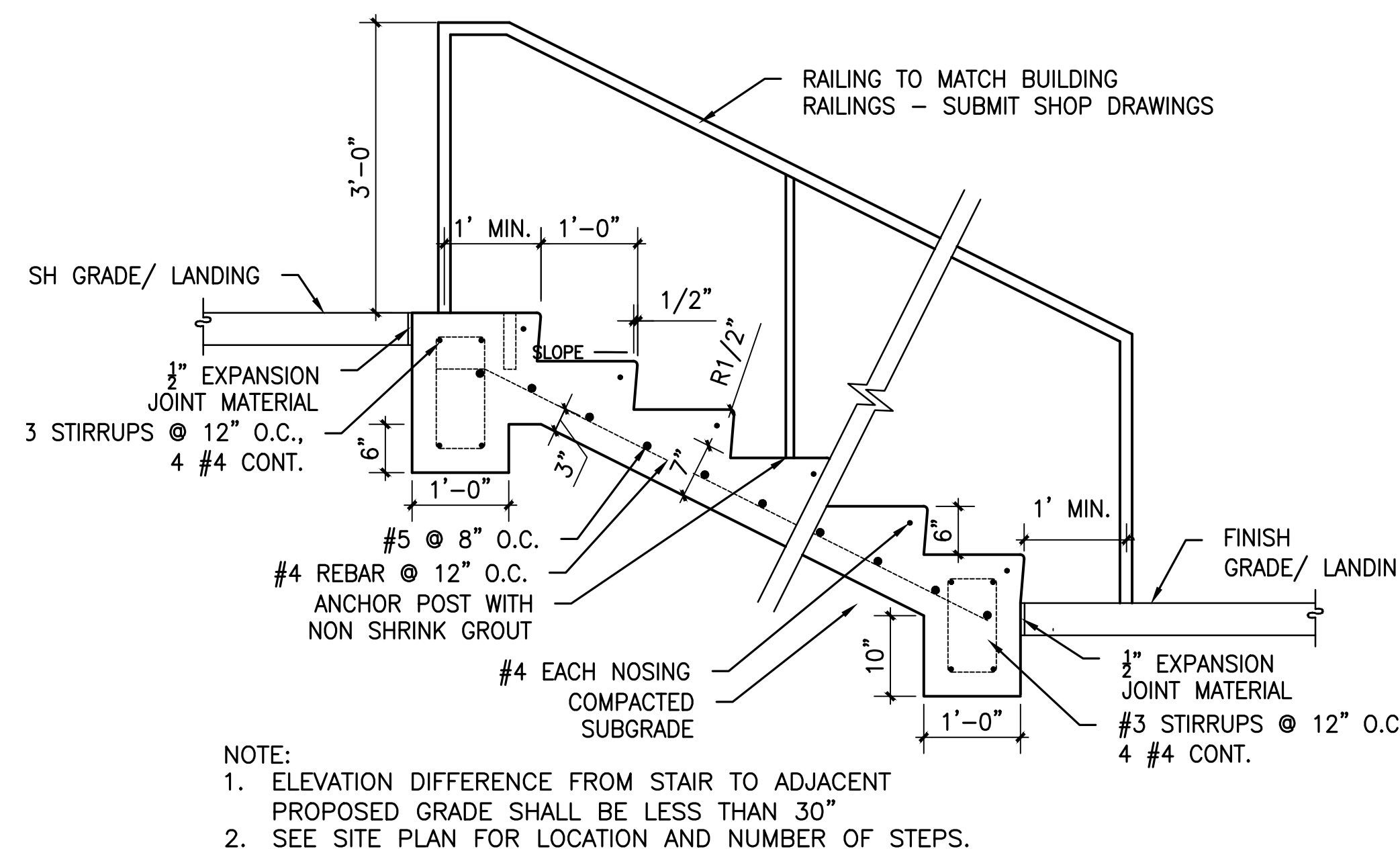


- NOTES:
1. SET FINISH GRADE OF PLANT BED 1" BELOW TOP OF PAVEMENT (1 1/2" FOR MULCH BEDS)
 2. INSTALL EXPANSION/ ISOLATION JOINTS 30' O.C & WHERE WALK ABUTS BUILDINGS, STEPS, WALKS, OR OTHER CONSTRUCTION.
 3. TOOLED CONTRACTION JOINTS SHALL BE SPACED EQUALLY AT A 5'-0" MINIMUM.
 4. LOCATE ISOLATION JOINTS WHERE PAVEMENT CHANGES DIRECTION.

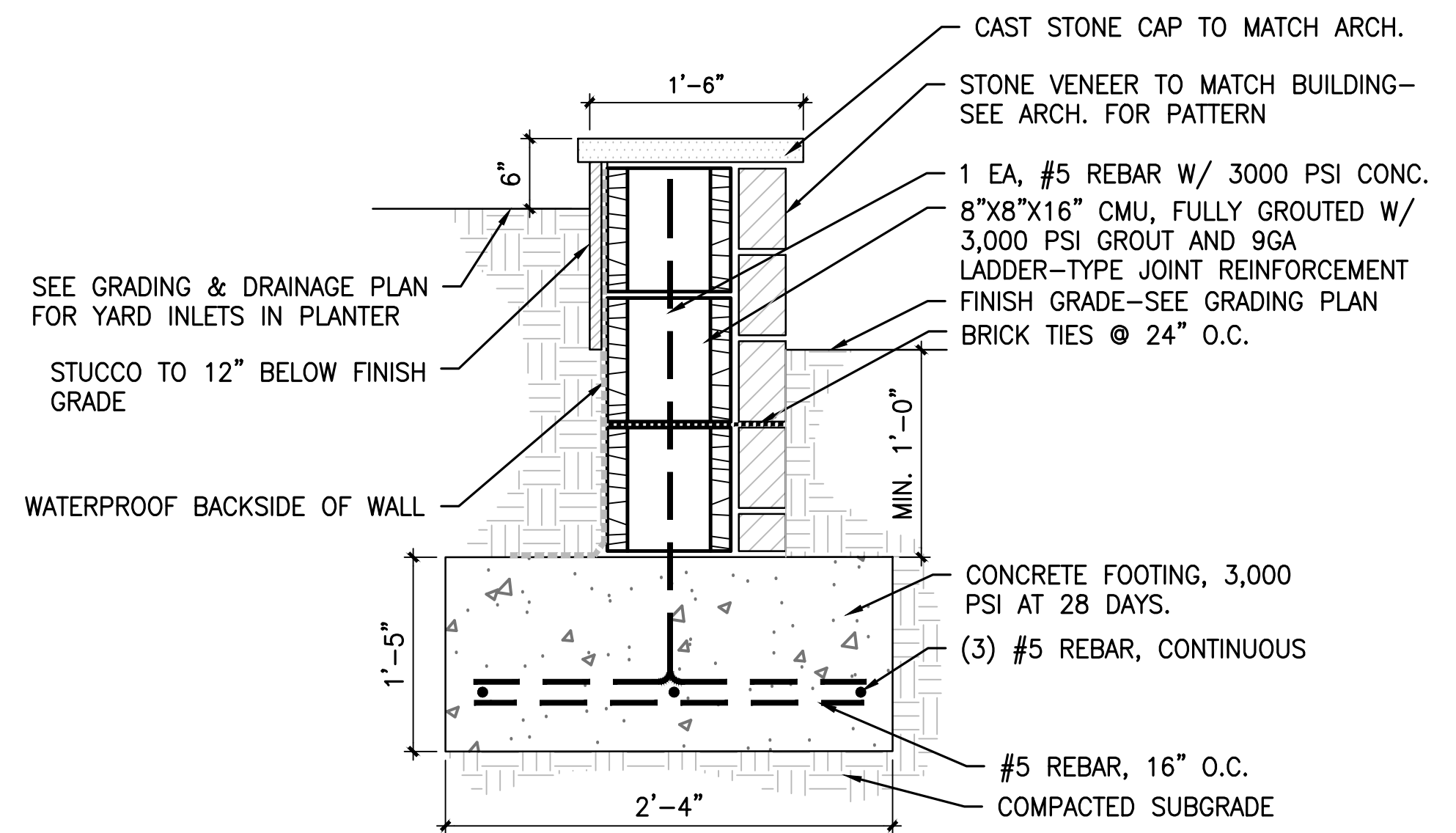
1 CONCRETE SIDEWALK
NOT TO SCALE



2 BLUEBIT COURTYARD PAVING
SCALE 3/4"=1'-0"

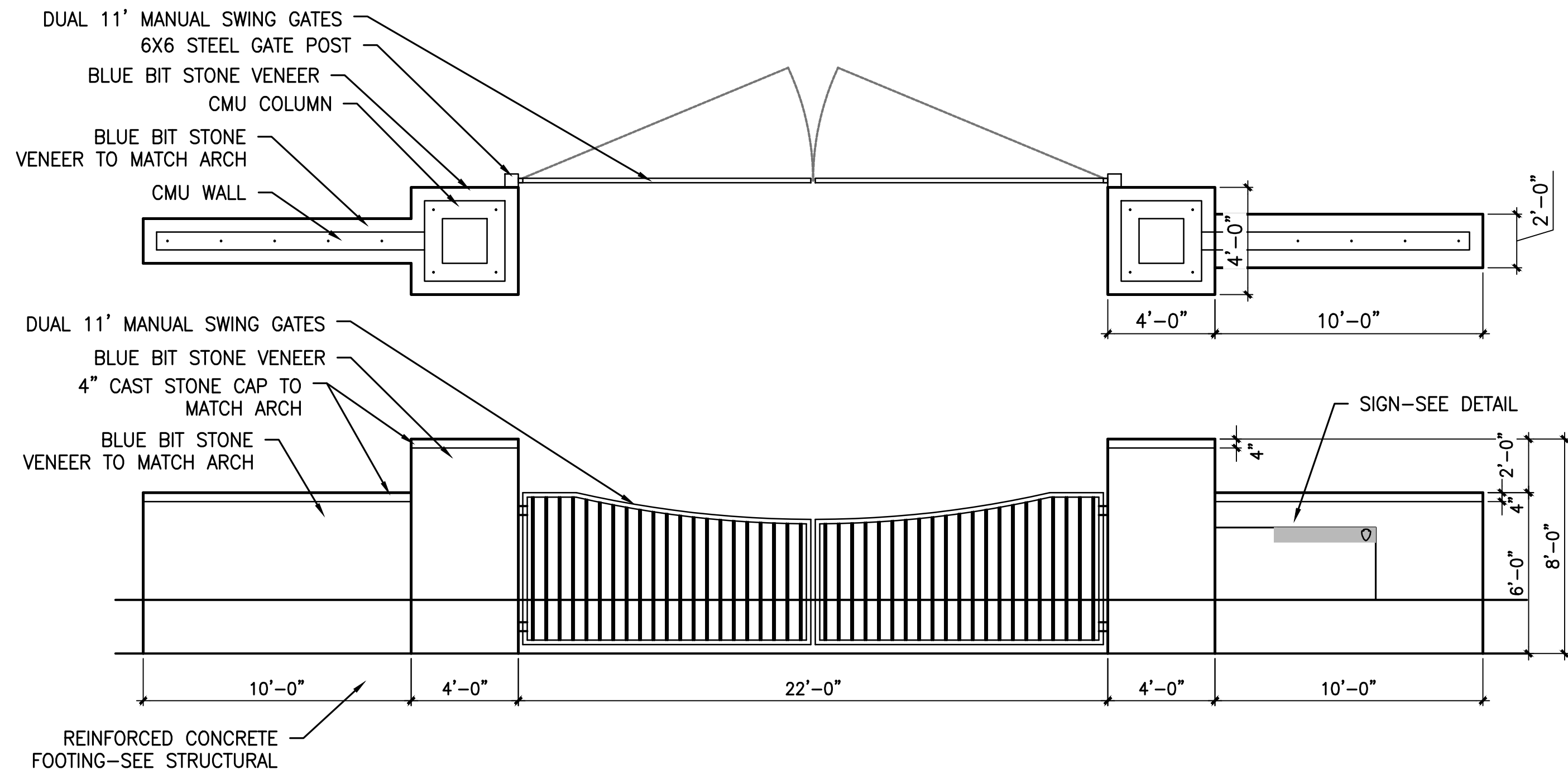


3 CONCRETE STEP DETAIL
SCALE 3/4"=1'-0"

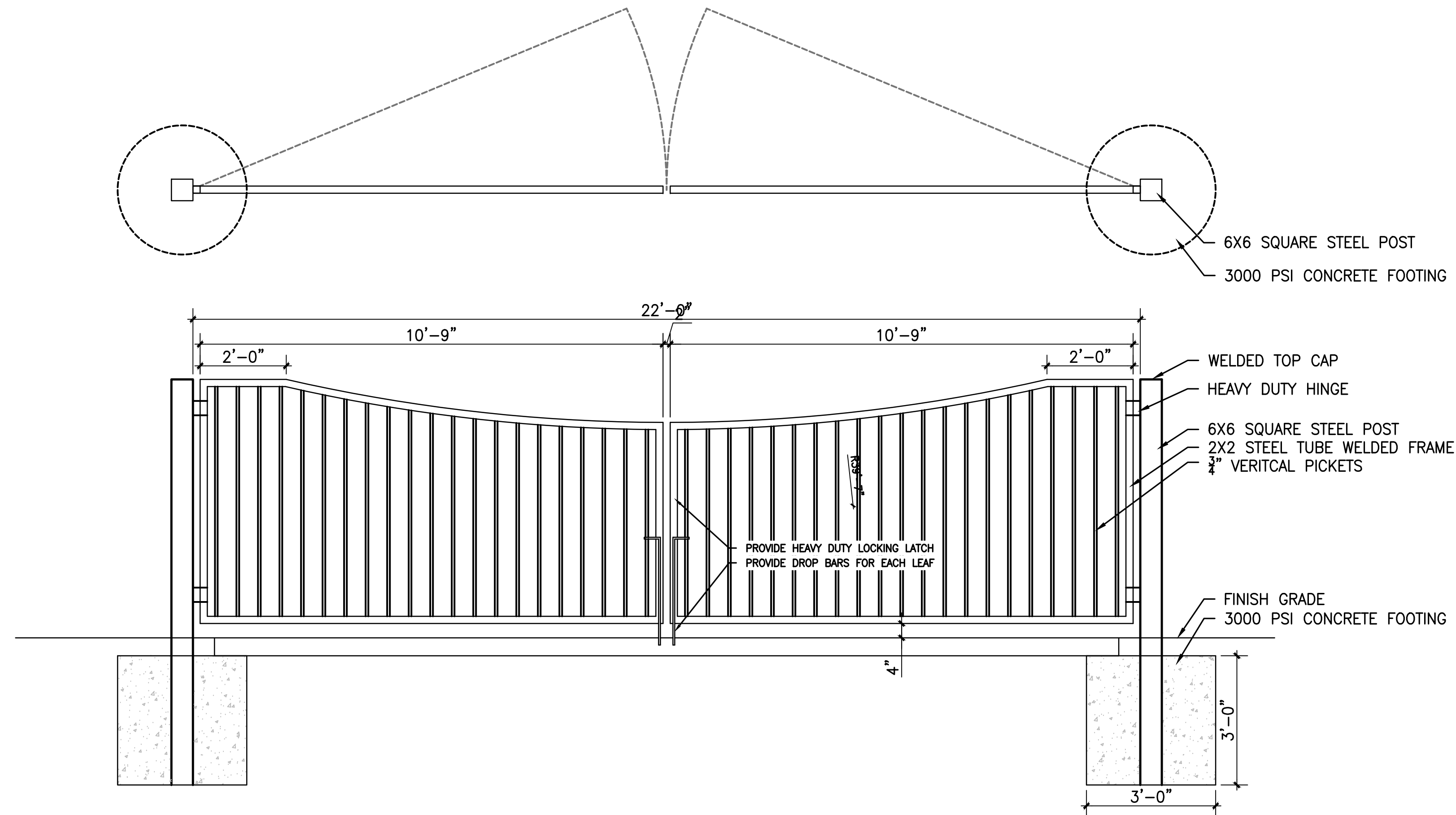


4 SEAT WALL/ RAISED PLANTER
SCALE: 1"=1'-0"

<p><i>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</i></p>	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
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	11/13/2020			251144B
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				— OF XXX



1 VEHICULAR COLUMNS/ GATES
 1/4" = 1'-0"



2 VEHICULAR GATES
 C3.08 1/4" = 1'-0"

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	CADD:			PMIS/PKG NO. 251144B
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	DATE: 11/13/2020			NPS DSC CHRI SALT RIVER VC OF XXX

Erosion and Sediment Controls. The following erosion and sediment control guidelines must be followed during construction:

- All permeable pavement areas should be fully protected from sediment intrusion by silt fence or construction fencing, particularly if they are intended to infiltrate runoff.
- Intended permeable pavement areas must remain outside the limit of disturbance during construction to prevent soil compaction by heavy equipment (unless the area has been determined to have a low CBR and will require compaction during the permeable pavement construction phase). Where this is unavoidable, the impacted area should not be excavated below 2 feet above the final design elevation of the bottom of the aggregate reservoir course until further compaction by heavy equipment can be avoided. Once the area is excavated to grade, the impacted area should be tilled to a depth of 12 inches below the bottom of the reservoir layer. Permeable pavement areas must be clearly marked on all construction documents and grading plans.
- During construction, care should be taken to avoid tracking sediments onto any permeable pavement surface to avoid clogging.
- Any area of the site intended ultimately to be a permeable pavement area should generally not be used as the site of a temporary sediment basin. Where locating a sediment basin on an area intended for permeable pavement is unavoidable, the invert of the sediment basin must be a minimum of 2 feet above the final design elevation of the bottom of the aggregate reservoir course. All sediment deposits in the excavated area should be carefully removed prior to installing the sub-base, base, and surface materials.

Permeable Pavement Installation. The following is a typical construction sequence to properly install permeable pavement, which may need to be modified depending on the specific variant of permeable pavement that is being installed.

Step 1: Construction of the permeable pavement should only begin after the entire contributing drainage area has been stabilized. The proposed site should be checked for existing utilities prior to any excavation. Do not install the system in rain or snow and do not install frozen bedding materials.

Step 2: As noted above, temporary erosion and sediment controls are needed during installation to divert stormwater away from the permeable pavement area until it is completed. Special protection measures, such as erosion control fabrics, may be needed to protect vulnerable side slopes from erosion during the excavation process. The proposed permeable pavement area must be kept free from sediment during the entire construction process. Construction materials contaminated by sediments must be removed and replaced with clean materials.

Step 3: Where possible, excavators or backhoes should work from the sides to excavate the reservoir layer to its appropriate design depth and dimensions. For small pavement applications, excavating equipment should have arms with adequate extension so they do not have to work inside the footprint of the permeable pavement area (to avoid compaction). Contractors can utilize a cell construction approach, whereby the proposed permeable pavement area is split into 500- to 1,000-square foot temporary cells with a 10- to 10-foot earth bridge in between, so cells can be excavated from the side. Excavated material should be placed away from the open excavation so as to not jeopardize the stability of the side walls.

Step 4: The native soils along the bottom of the permeable pavement system should be scarified or tilled to a depth of 3 to 4 inches prior to the placement of the filter layer or geotextile fabric. In large scale paving applications with weak soils, the soil subgrade may need to be compacted to 95 percent of the Standard Proctor Density to achieve the desired load-bearing capacity. Note: This may reduce or eliminate the infiltration function of the installation, and it must be addressed during hydrologic design.

Step 5: Geotextile fabric should be installed on the sides of the reservoir layer (and the bottom if the design calls for it). Geotextile fabric strips should overlap down-slope by a minimum of 2 feet and be secured a minimum of 4 feet beyond the edge of the excavation. Where the filter layer extends beyond the edge of the pavement (to convey runoff to the reservoir layer), install an additional layer of geotextile fabric 1 foot below the surface to prevent sediments from entering into the reservoir layer. Excess geotextile fabric should not be trimmed until the site is fully stabilized.

Step 6: Provide a minimum of 2 inches of aggregate above and below the underdrains. The up-gradient end of underdrains in the reservoir layer should be capped. Where an underdrain pipe is connected to a structure, there shall be no perforations within 1 foot of the structure. Ensure there are no perforations in clean-outs and observation wells within 1 foot of the surface.

Step 7: Spread 6-inch lifts of the appropriate clean, washed stone aggregate (usually No. 2 or No. 57 stone). Place at least 4 inches of additional aggregate above the underdrain, and then compact it using a vibratory roller in static mode until there is no visible movement of the aggregate. Do not crush the aggregate with the roller.

Installation of Permeable Pavers. The basic installation process is described in greater detail by Smith (2006):

- Place edge restraints for open-jointed pavement blocks before the bedding layer and pavement blocks are installed. Permeable pavement systems may require edge restraints to prevent vehicle loads from moving the paver blocks. Edge restraints may be standard curbs or gutter pans, or precast or cast-in-place reinforced concrete borders a minimum of 6 inches wide and 18 inches deep, constructed with Class A3 concrete. Edge restraints along the traffic side of a permeable pavement block system are recommended.
- Place the No. 57 stone in a single lift. Level the filter course and compact it into the reservoir course beneath with at least four passes of a 10-ton steel drum static roller until there is no visible movement. The first two passes are in vibratory mode, with the final two passes in static mode. The filter aggregate should be moist to facilitate movement into the reservoir course.
- Place and screed the bedding course material (typically No. 8 stone).
- Fill gaps at the edges of the paved areas with cut pavers or edge units. When cut pavers are needed, cut the pavers with a paver splitter or masonry saw. Cut pavers no smaller than 1/3 of the full unit size.
- Pavers may be placed by hand or with mechanical installers. Fill the joints and openings with stone. Joint openings must be filled with ASTM D 448 No. 8 stone; although, No. 8P or No. 9 stone may be used where needed to fill narrower joints. Remove excess stones from the paver surface.
- Compact and seat the pavers into the bedding course with a minimum low-amplitude 5,000-lbf, 75– to 95-Hz plate compactor.
- Do not compact within 6 feet of the unrestrained edges of the pavers.
- The system must be thoroughly swept by a mechanical sweeper or vacuumed immediately after construction to remove any sediment or excess aggregate.
- Inspect the area for settlement. Any blocks that settle must be reset and re-inspected.
- Inspect the facility 18 to 30 hours after a significant rainfall (½ inch or greater) or artificial flooding to determine whether the facility is draining properly.

Reference: Chapter 4.3 of the SC Low Impact Development in Coastal South Carolina: A Planning and Design Guide

1 PERMEABLE PAVEMENT CONSTRUCTION SEQUENCE
C3.10 NOT TO SCALE

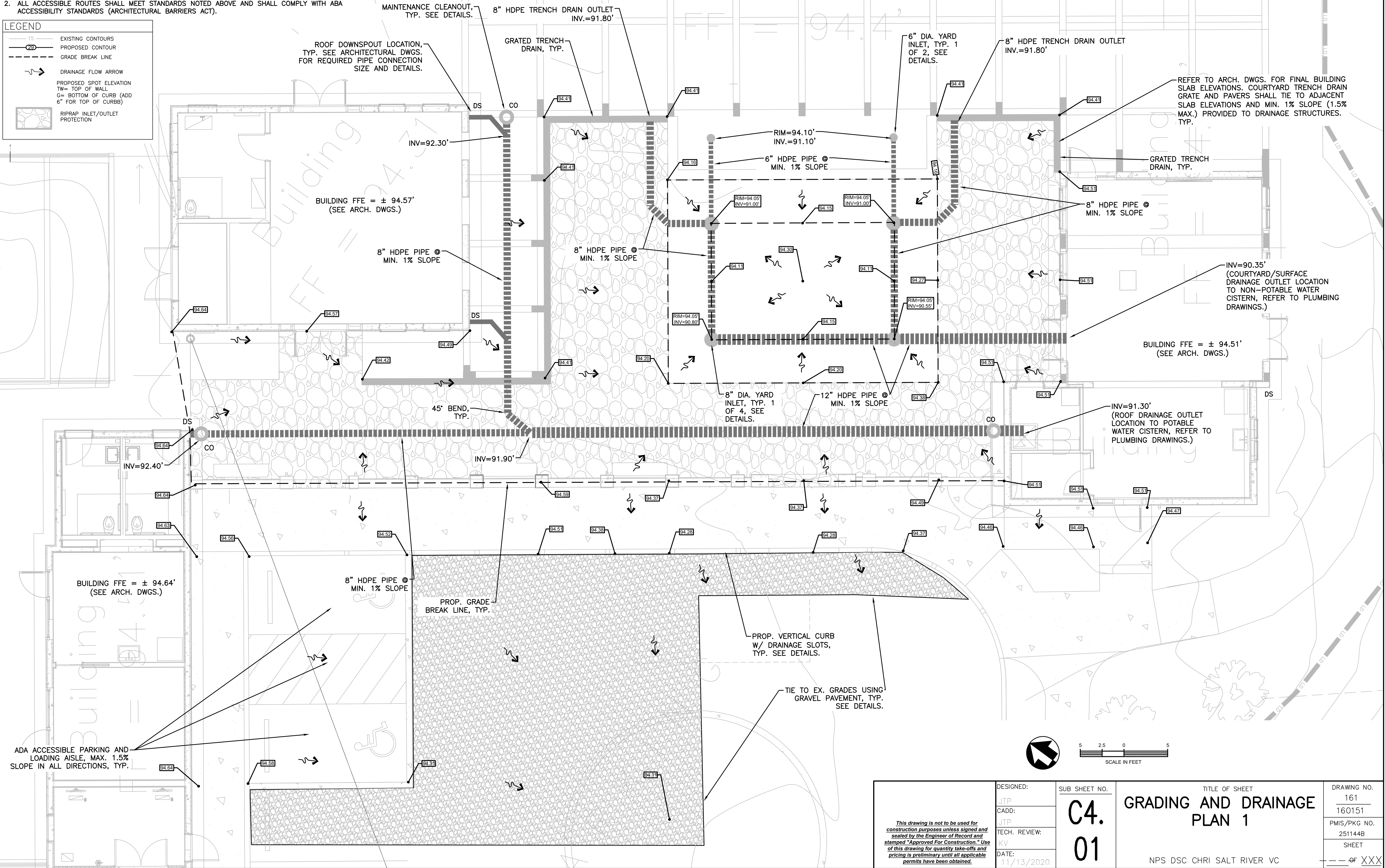
<p><i>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</i></p>	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
	CADD:	<div>C3.</div> <div>10</div>	<div>SITE DETAILS 6</div> <div>NPS DSC CHRI SALT RIVER VC</div>	<div>161</div> <div>160151</div>
	TECH. REVIEW:			PMIS/PKG NO.
	DATE:			SHEET
	11/13/2020			<div>— — — — — OF XXX</div>

ACCESSIBLE ROUTE NOTES:
1. ACCESSIBLE ROUTES SHALL COMPLY WITH THE FOLLOWING:
1.1. MAXIMUM RUNNING SLOPE 4.0%
1.2. MAXIMUM CROSS SLOPE 1.5%
1.3. MAXIMUM RAMP SLOPE 7.5%
1.4. MAXIMUM SLOPE ON ACCESSIBLE SPACES & AISLES 1.5% ALL DIRECTIONS
2. ALL ACCESSIBLE ROUTES SHALL MEET STANDARDS NOTED ABOVE AND SHALL COMPLY WITH ABA ACCESSIBILITY STANDARDS (ARCHITECTURAL BARRIERS ACT).

LEGEND

15 EXISTING CONTOURS
20 PROPOSED CONTOUR
--- GRADE BREAK LINE
~> DRAINAGE FLOW ARROW
PROPOSED SPOT ELEVATION
TW= TOP OF WALL
G= BOTTOM OF CURB (ADD 6" FOR TOP OF CURB)
RIPRAP INLET/OUTLET PROTECTION

FINISH FLOOR NOTE:
REFER TO ARCHITECTURAL SLAB PLANS FOR FINISH FLOOR DIFFERENCES AND SLOPES THROUGHOUT BUILDINGS, PLAZAS, PAVILIONS, AND BALCONIES.



LEGEND

15
EXISTING CONTOURS
PROPOSED CONTOUR
GRADE BREAK LINE

DRAINAGE FLOW ARROW

PROPOSED SPOT ELEVATION
TW= TOP OF WALL
G= BOTTOM OF CURB (ADD
6" FOR TOP OF CURBB)

RIPRAP INLET/OUTLET
PROTECTION

S 00°12' E 370.62'

Wood Power Pole

± 90 SF OF
D50=6" RIPRAP
OUTLET PROTECTION,
SEE DETAILS.

TIE TO EX.
GRADE, TYP.

Concrete Drive

GRADE BREAK
LINE, TYP.

MOUNDED SEPTIC
WASTE DISPOSAL
AREA, SEE UTILITY
PLAN AND DETAILS.

3:1 MAX.
SIDE-
SLOPES,
TYP.

TIE TO EX.
GRADE, TYP.

LIMITS OF
DISTURBANCE, TYP.

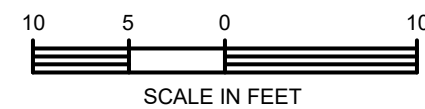
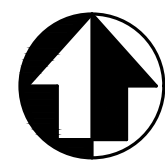
1.4608 AC.

40

50

60

Plot No.



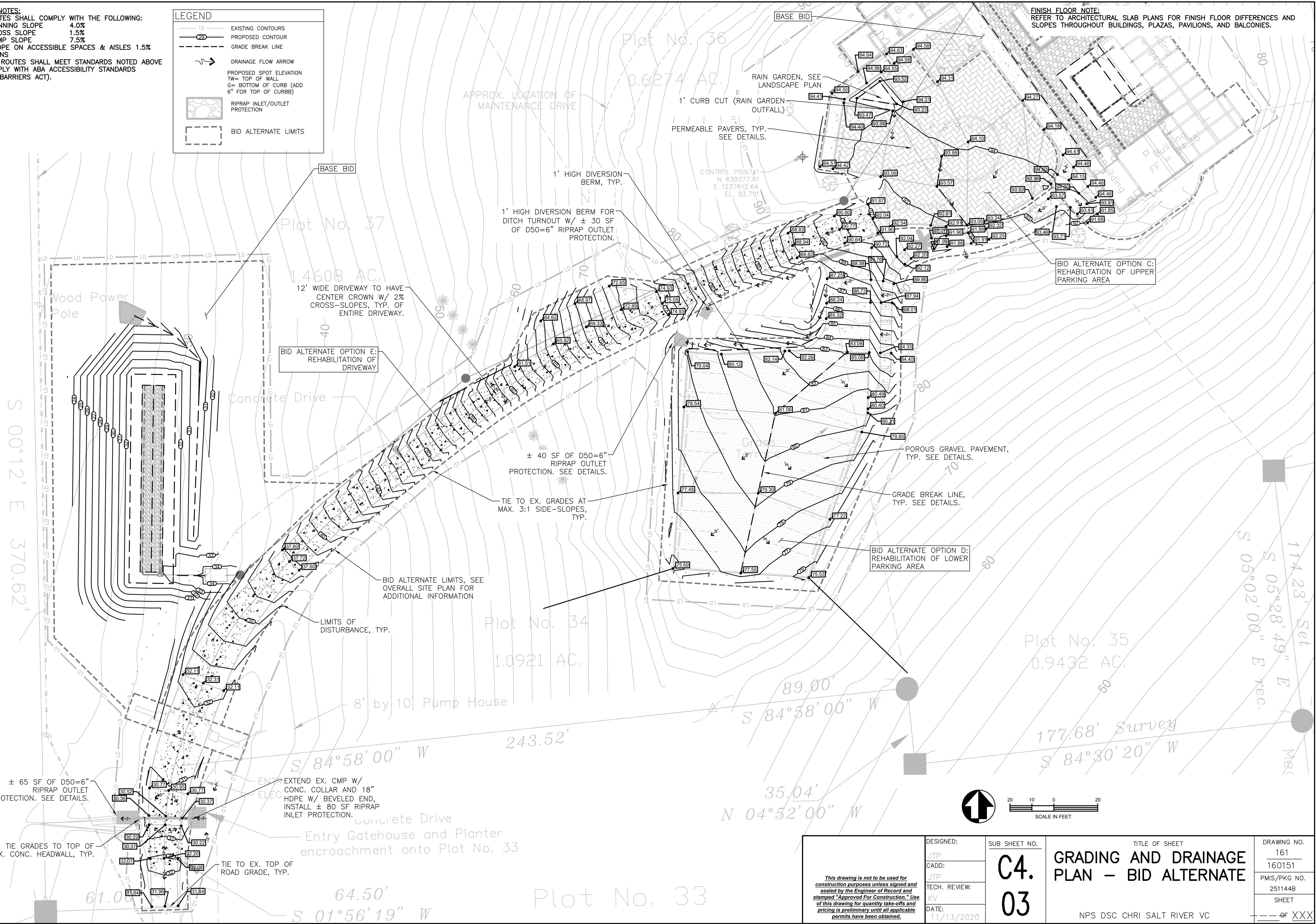
<p><i>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</i></p>	DESIGNED:	SUB SHEET NO. C4. 02	TITLE OF SHEET GRADING AND DRAINAGE PLAN 2	DRAWING NO. 161
	CADD:			160151
	TECH. REVIEW:			PMIS/PKG NO. 251144B
	DATE:			SHEET
	11/13/2020			NPS DSC CHRI SALT RIVER VC
				— — — OF XXX

- ACCESSIBLE ROUTE NOTES:
1. ACCESSIBLE ROUTES SHALL COMPLY WITH THE FOLLOWING:
1.1. MAXIMUM RUNNING SLOPE 4.0%
1.2. MAXIMUM CROSS SLOPE 1.5%
1.3. MAXIMUM RAMP SLOPE 7.5%
1.4. MAXIMUM SLOPE ON ACCESSIBLE SPACES & AISLES 1.5% ALL DIRECTIONS
2. ALL ACCESSIBLE ROUTES SHALL MEET STANDARDS NOTED ABOVE AND SHALL COMPLY WITH ADA ACCESSIBILITY STANDARDS (ARCHITECTURAL BARRIERS ACT).

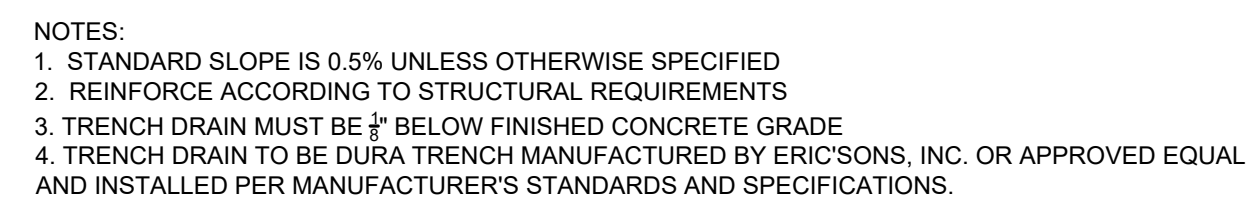
LEGEND

- 15 EXISTING CONTOURS
- 20 PROPOSED CONTOUR
- GRADE BREAK LINE
- DRAINAGE FLOW ARROW
- PROPOSED SPOT ELEVATION
TW= TOP OF WALL
G= BOTTOM OF CURB (ADD 6" FOR TOP OF CURB)
- RIPRAP INLET/OUTLET PROTECTION
- BID ALTERNATE LIMITS

FINISH FLOOR NOTE:
REFER TO ARCHITECTURAL SLAB PLANS FOR FINISH FLOOR DIFFERENCES AND SLOPES THROUGHOUT BUILDINGS, PLAZAS, PAVILIONS, AND BALCONIES.



<p><i>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</i></p>	DESIGNED:	<div>SUB SHEET NO.</div> <div>C4.</div> <div>03</div>	<div>TITLE OF SHEET</div> <div>GRADING AND DRAINAGE PLAN – BID ALTERNATE</div>	DRAWING NO.
	JTP			161
	CADD:			160151
	JTP			PMIS/PKG NO.
	TECH. REVIEW:			251144B
	KV			SHEET
DATE:	11/13/2020		NPS DSC CHRI SALT RIVER VC	— OF XXX



TYPICAL TRENCH SECTION



TRENCH DRAIN
NOT TO SCALE

<p><i><u>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</u></i></p>	DESIGNED:	<p>SUB SHEET NO.</p> <p>C4.</p> <p>05</p>	TITLE OF SHEET	DRAWING NO.
	JTP		<p>DRAINAGE DETAILS 2</p>	161
	CADD:			160151
	JTP			PMIS/PKG NO.
	TECH. REVIEW:			251144B
	KV			SHEET
	DATE:		NPS DSC CHRI SALT RIVER VC	— — — OF XXX
	11/13/2020			

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45' SEPTIC DISPOSAL
AREA SETBACK FROM
PROPERTY LINE, TYP.

APPROX. LOCATION OF
MAINTENANCE DRIVE

LIMITS OF
DISTURBANCE, TYP.

(2) 4" 85 LF PERFORATED (BOTTOM
HALF) PVC DISTRIBUTION PIPES @ 0.0%
SLOPE, I.E.=31.40'. SEE DETAILS.

NEW SEPTIC MOUNDED
WASTE DISPOSAL/ LEACHING
AREA (10'x85' DISPOSAL
BED AREA), SEE DETAILS.
SEE GRADING AND DRAINAGE
PLAN FOR REQUIRED
FINISHED GRADES, TYP.

CONC. DISTRIBUTION
BOX, SEE DETAILS.
6" INV. IN= 31.57'
(2) 4" INV.
OUT=31.40'

SSMH-A2
RIM= 56.00
INV IN= 52.00
INV OUT= 48.00

20 LF OF 6" PVC

SSMH-A1
RIM= 35.40
INV IN= 32.05
INV OUT= 31.95

SS-A1
6.68 LF of 6" @ 0.75%
TIE 6" PVC TO SEPTIC TANK
INV=31.90

CONC. SEPTIC TANK,
SEE DETAILS.
RIM= 34.05'
6" INV. IN= 31.90'
6" INV. OUT= 31.80'

4" SWEEPING
90° PVC BEND

4" SOLID WALL
PVC TO CONNECT
DISTRIBUTION BOX
TO PERFORATED
DISTRIBUTION LINES
@ 0.0% SLOPE,
TYP. (I.E= 31.40')

SEWER CONSTRUCTION NOTES:

1. WASTEWATER INSTALLATION SHALL BE IN ACCORDANCE WITH "TEN STATES STANDARDS".
2. SUBMIT SHOP DRAWINGS AND PRODUCT DATA ON MANHOLES, PIPING, AND ACCESSORIES TO THE ENGINEER FOR APPROVAL.
3. CONNECTIONS TO EXISTING MANHOLES SHALL BE MADE IN THE PRESENCE OF A NPS REPRESENTATIVE. CONTRACTOR SHALL NOTIFY NPS AT LEAST 48 HOURS BEFORE CONNECTION BEGINS.
4. ROUGH GRADING SHALL BE DONE PRIOR TO INSTALLATION OF SEWER MAIN.
5. NO MANHOLE COVERS ARE ALLOWED IN CURBING. MANHOLES SHALL BE LOCATED OUTSIDE CONCRETE AND ASPHALT PAVING WHENEVER POSSIBLE.
6. CONNECTIONS TO GRAVITY LINES AND MANHOLES SHALL NOT BE GREATER THAN THE DIAMETER OF THE DOWNSTREAM LINE.
7. CONTRACTOR SHALL INSTALL WATERTIGHT RINGS AND COVERS ON ALL MANHOLES AFFECTED BY STREET RUNOFF OR BELOW THE 50-YEAR FLOOD ELEVATION.
8. ALL SANITARY SEWER SERVICES SHALL BE SDR 26 PVC AND LAID ON A MINIMUM SLOPE OF 1.00% UNLESS OTHERWISE STATED. THE SERVICES SHALL BE CONNECTED TO MANHOLES WHERE REASONABLY POSSIBLE.
9. GRAVITY MAINS SHALL BE 8" OR 6" SDR-26 PVC FOR DEPTHS OF COVER FROM 3-20 FEET, SDR-18 PVC SHALL BE USED FOR DEPTHS GREATER THAN 20 FEET, AND DIP SHALL BE USED PER NOTE 10 BELOW.
10. DIP FOR WASTEWATER SHALL BE USED:
 - WITH LESS THAN THREE (3) FEET OF COVER OR GREATER THAN 18 FEET OF COVER;
 - CROSSING BENEATH STORM DRAINAGE PIPE WITH LESS THAN THREE (3) FEET OF CLEARANCE;
 - CROSSING ABOVE STORM DRAINAGE PIPE WITH LESS THAN TWO (2) FEET OF CLEARANCE;
 - CROSSING WATER MAINS WITHIN 18".
11. ALL COMPONENTS OF THE PIPING SYSTEM THAT ARE DIP SHALL BE ENCLOSED WITH LINEAR LOW-DENSITY 8 MILS GREEN POLYETHYLENE ENCASEMENT.
12. LINING FOR DIP FOR WASTEWATER SHALL BE PROTECTO 401, OR APPROVED EQUAL.
13. SLEEVES SHALL BE USED TO TRANSITION BETWEEN PVC AND DIP. FERNCO OR SIMILAR COUPLINGS ARE NOT ALLOWED.
14. WHERE WATER AND SANITARY SEWER LINES CROSS WITHIN 18", THE LINE LAID LAST SHALL HAVE A FULL LENGTH OF PIPE INSTALLED WITH ITS MIDPOINT VERTICALLY IN LINE WITH THE OTHER LINE. THE CROSSING SHALL BE AT NOT LESS THAN A 45 DEGREE ANGLE.



20 10 0 20
SCALE IN FEET

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DESIGNED:

JTP

CADD:

JTP

TECH. REVIEW:

KV

DATE:

11/13/2020

SUB SHEET NO.

C5.
01

TITLE OF SHEET
UTILITY PLAN

NPS DSC CHRI SALT RIVER VC

DRAWING NO.

161

160151

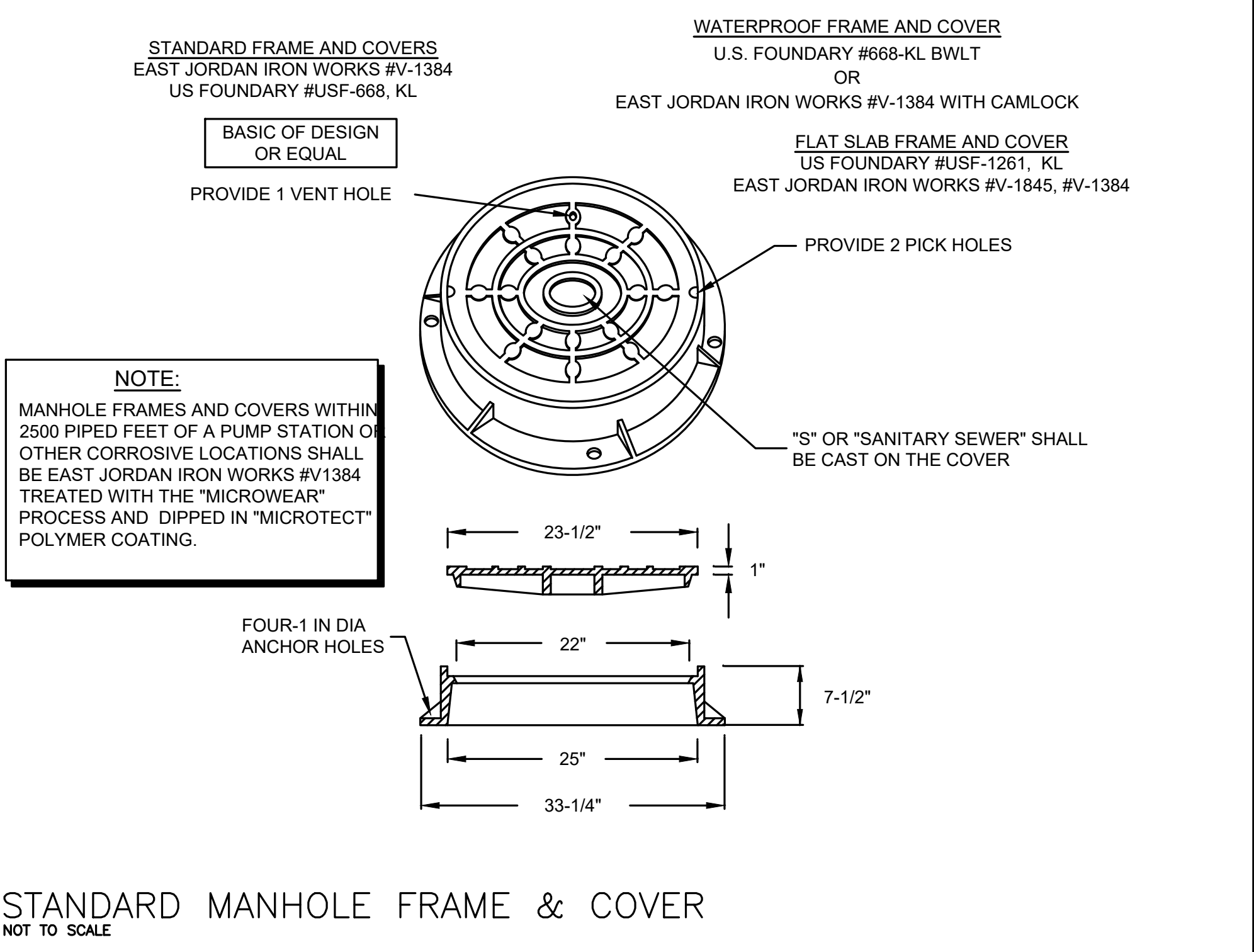
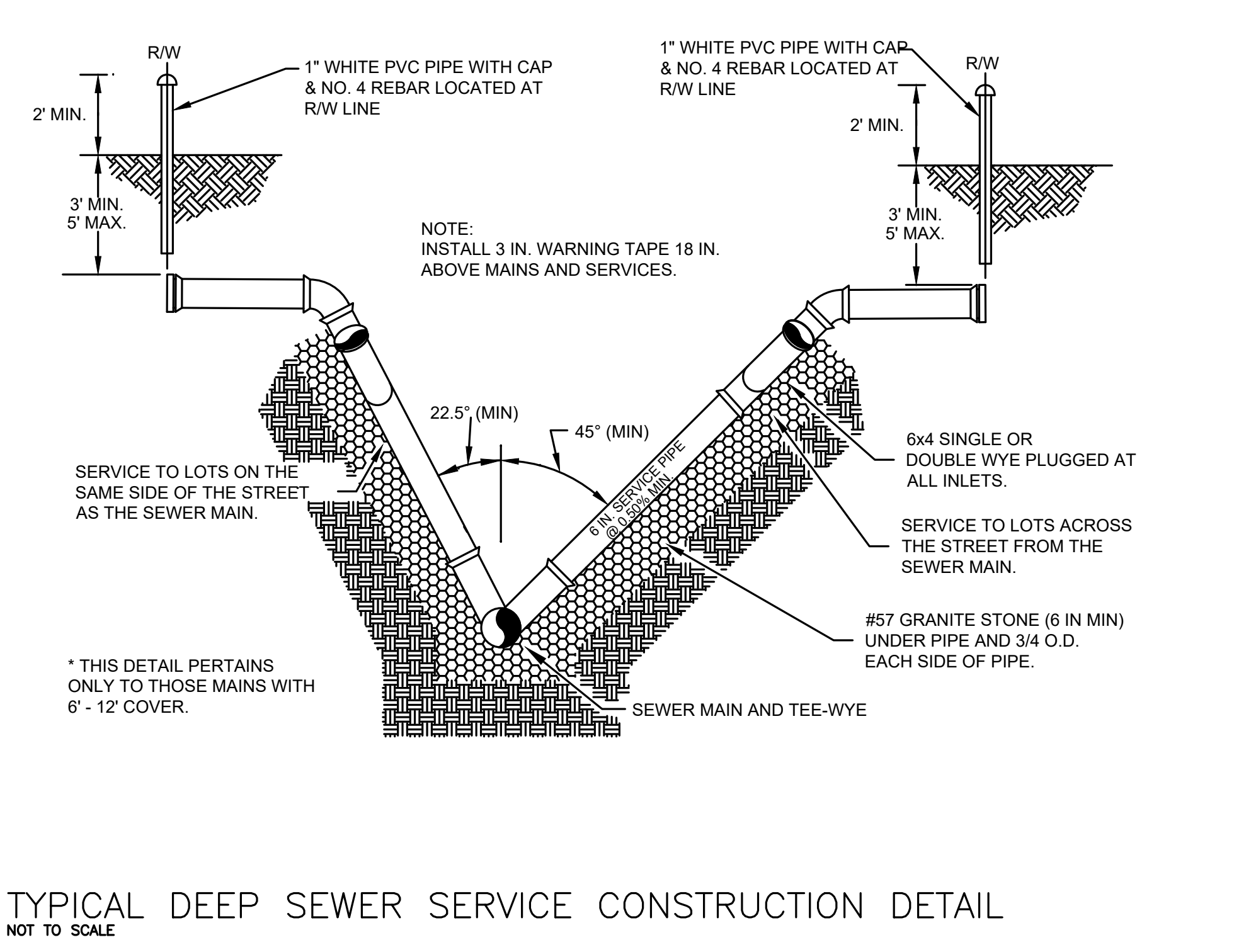
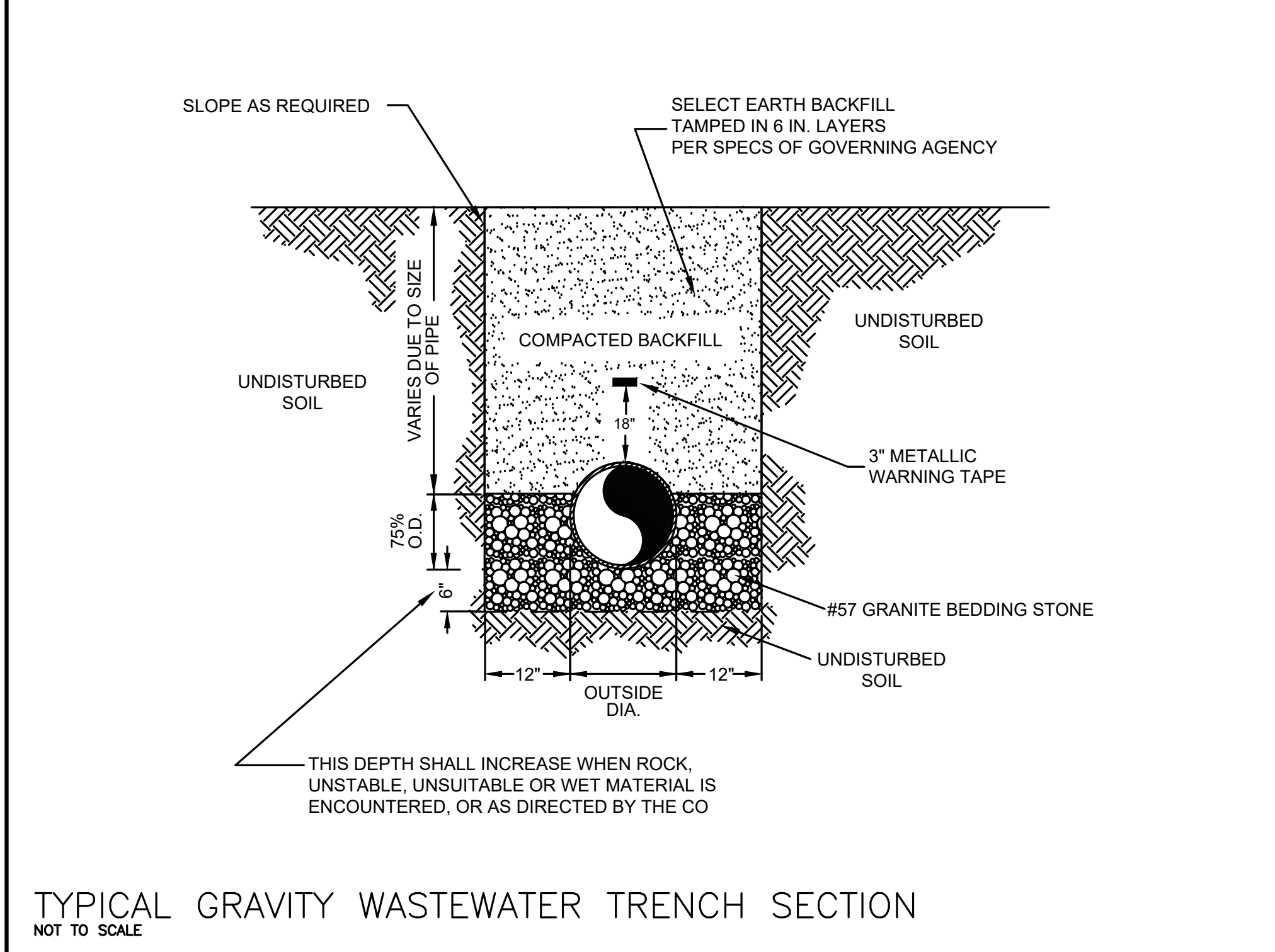
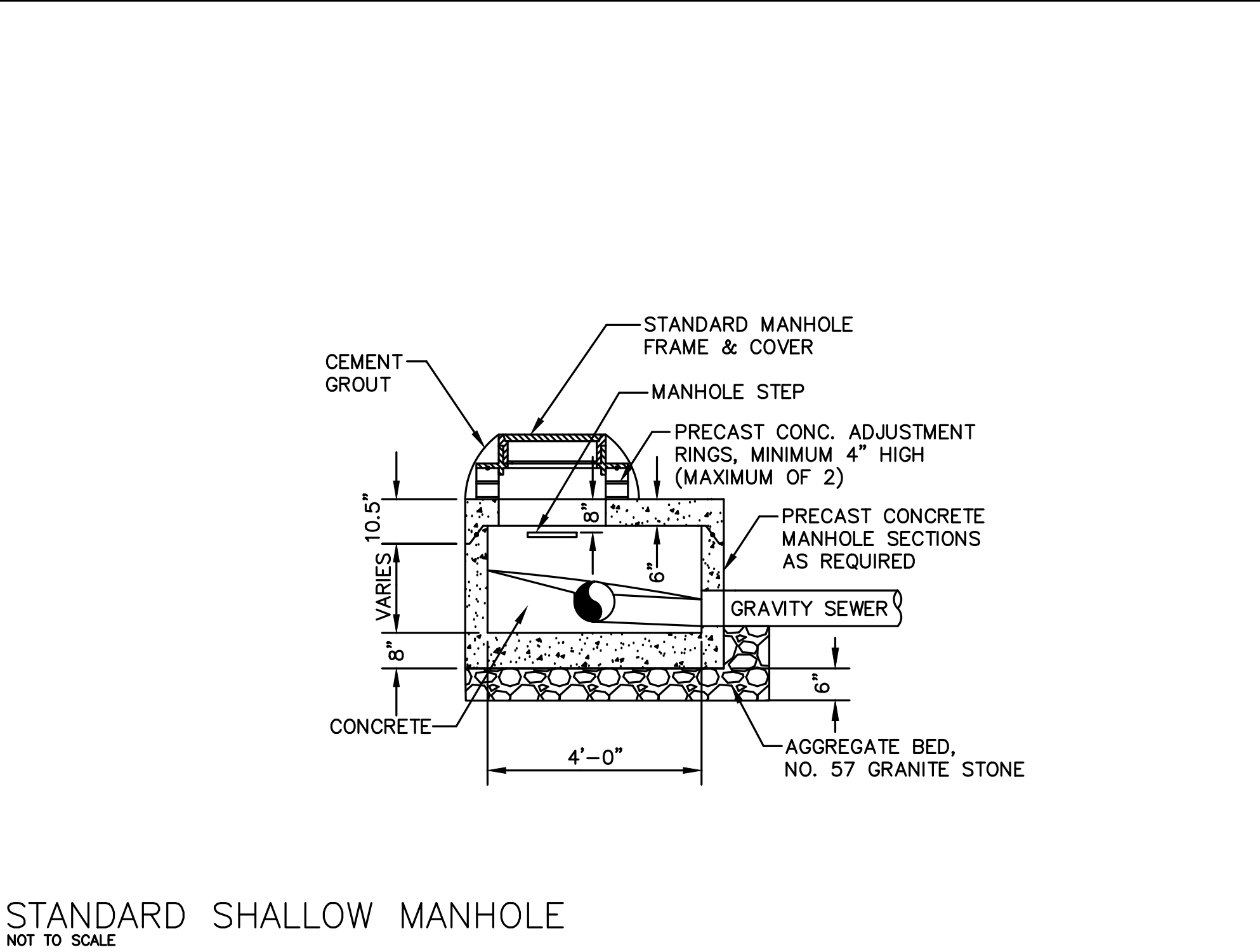
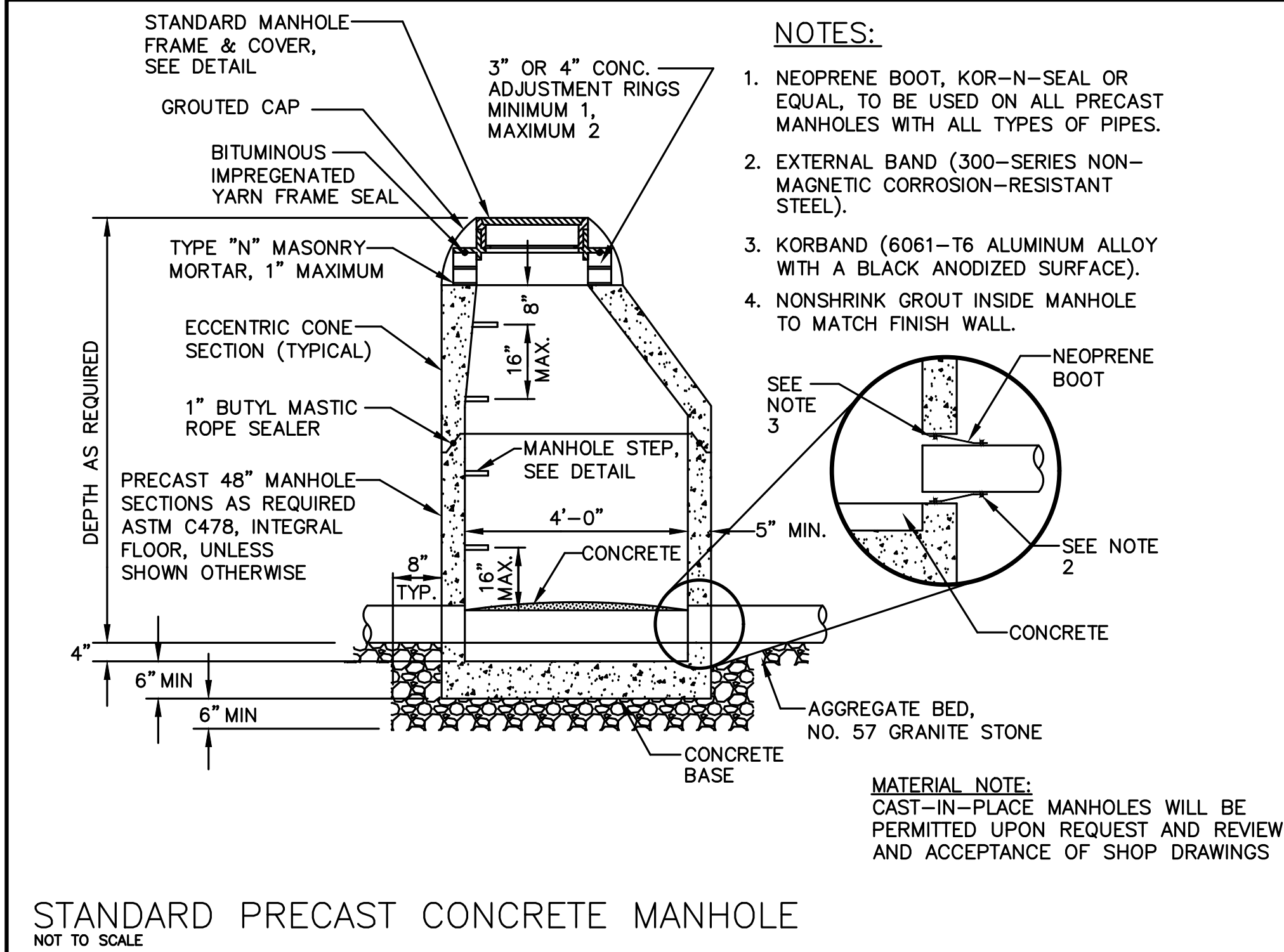
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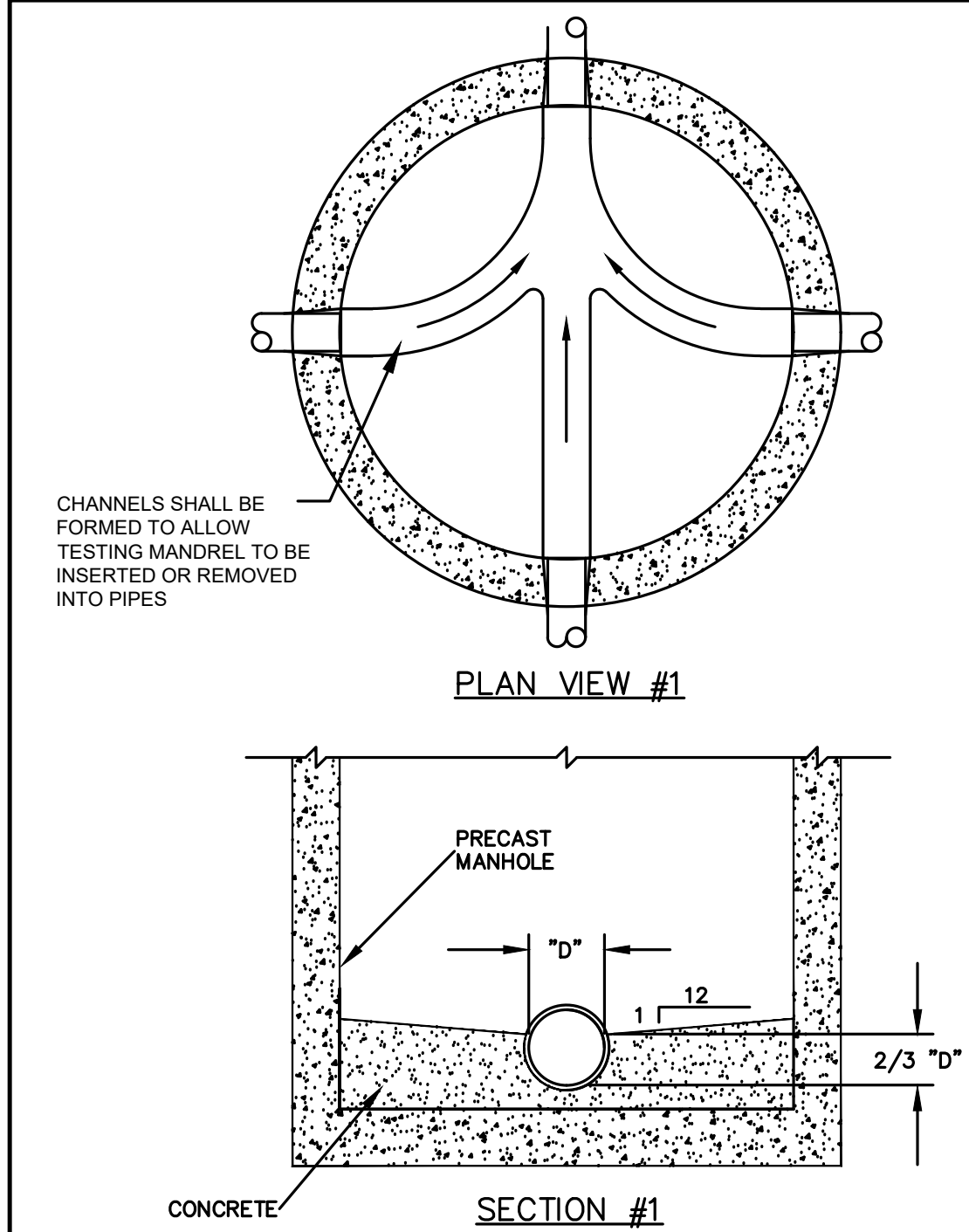
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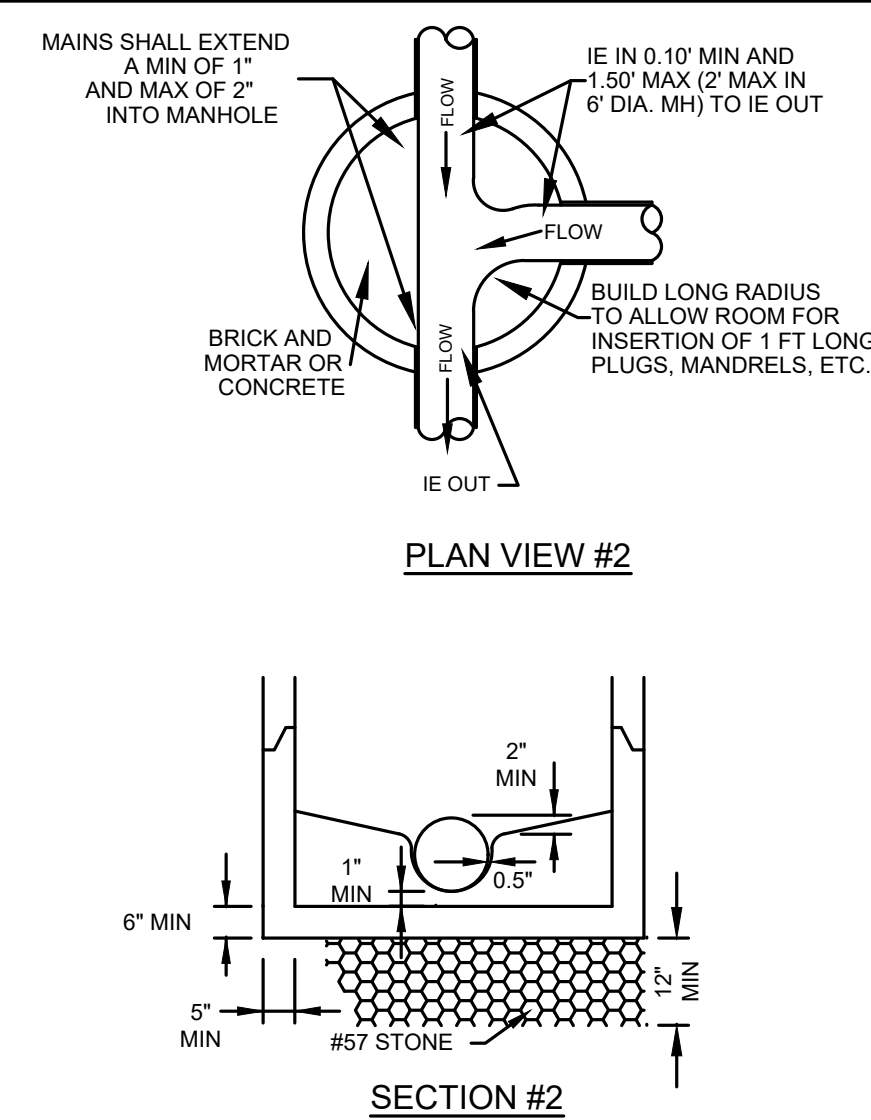
— OF XXX

<p><i>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</i></p>	DESIGNED:	<div>SUB SHEET NO.</div> <div>C5.</div> <div>02</div>	TITLE OF SHEET	DRAWING NO.
	JTP		<div>UTILITY PROFILE</div> <div>NPS DSC CHRI SALT RIVER VC</div>	161
	CADD:			160151
	JTP			PMIS/PKG NO.
	TECH. REVIEW:			251144B
	KV			SHEET
	DATE:			— — — OF XX
	11/13/2020			

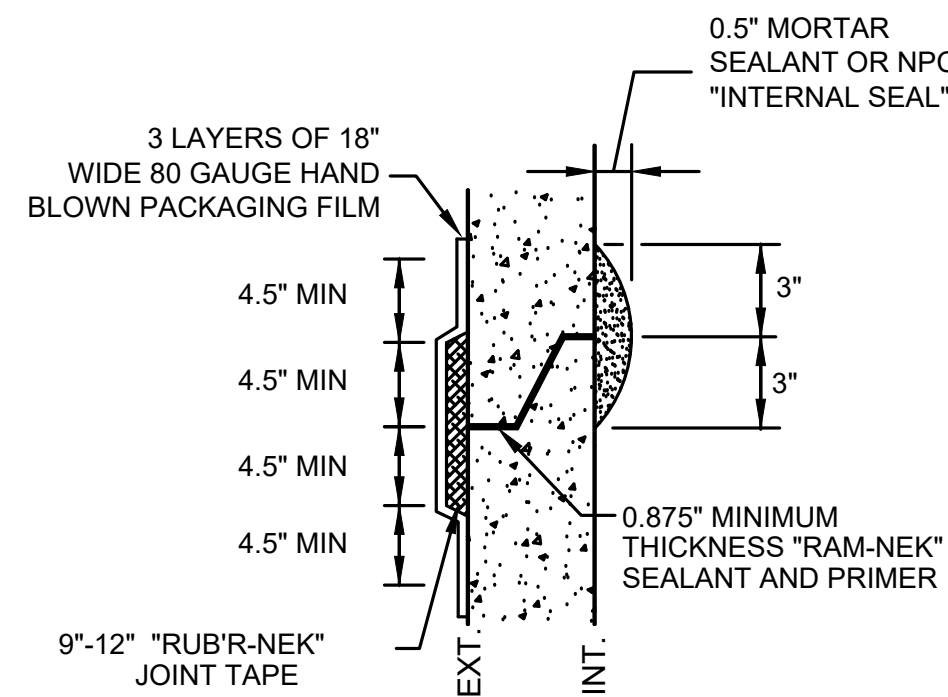




STANDARD MANHOLE CHANNEL AND BENCH
NOT TO SCALE

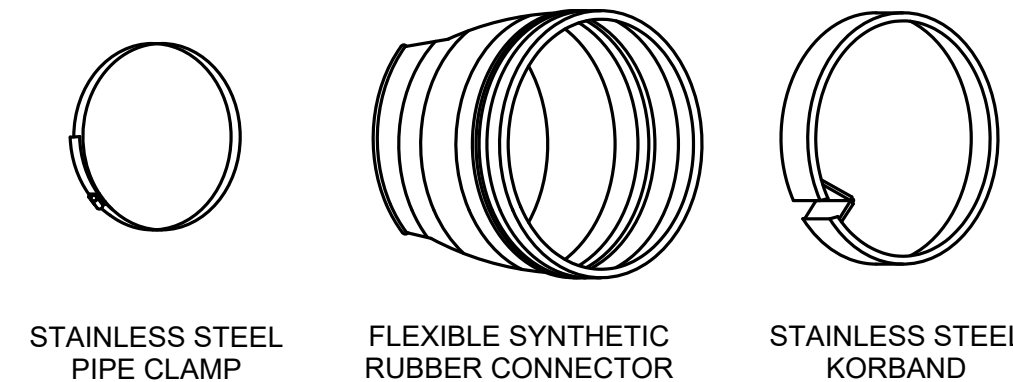


MANHOLE JOINT DETAIL
NOT TO SCALE

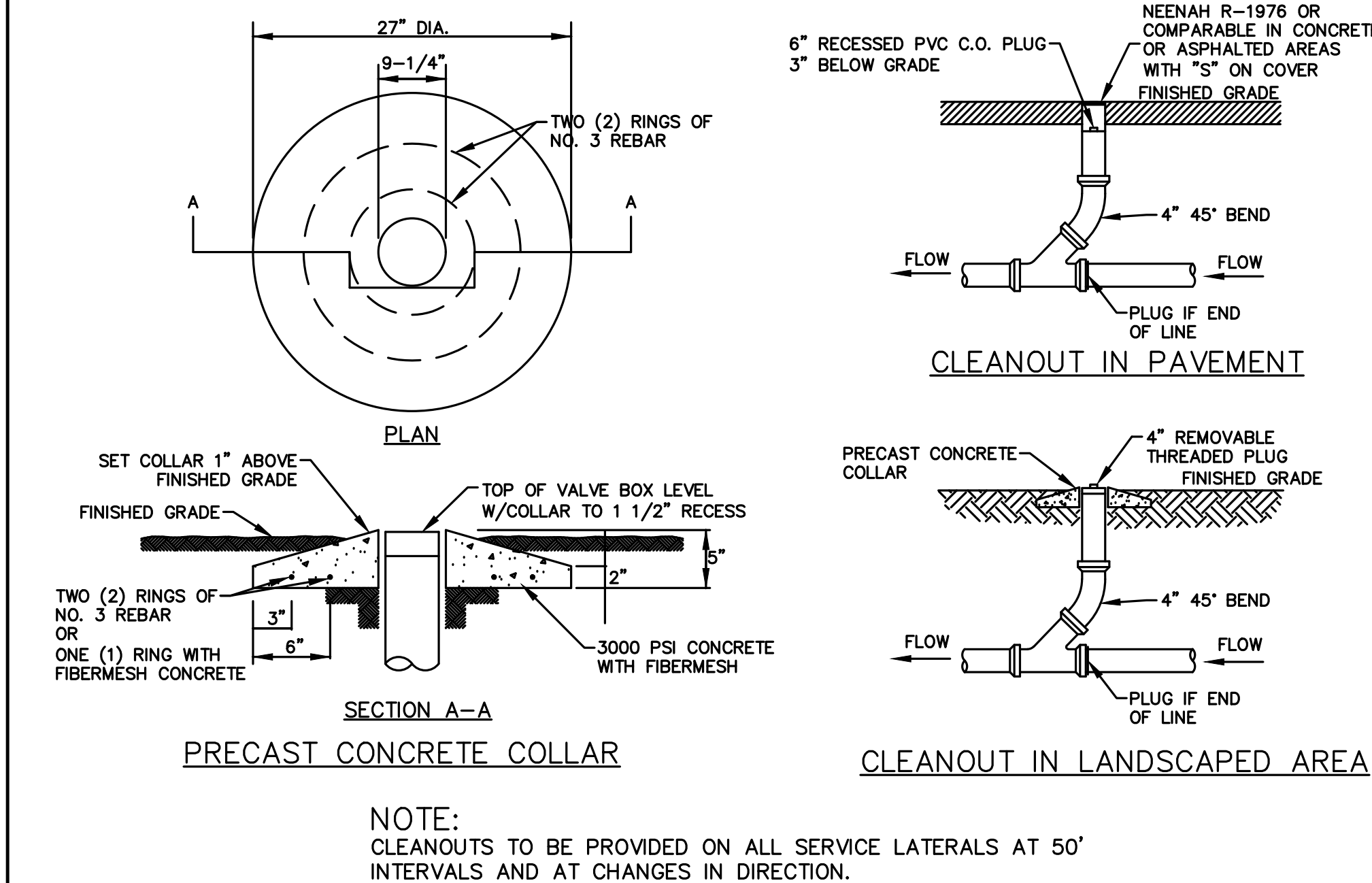


NOT TO SCALE
MANHOLE INVERT "BOOT"

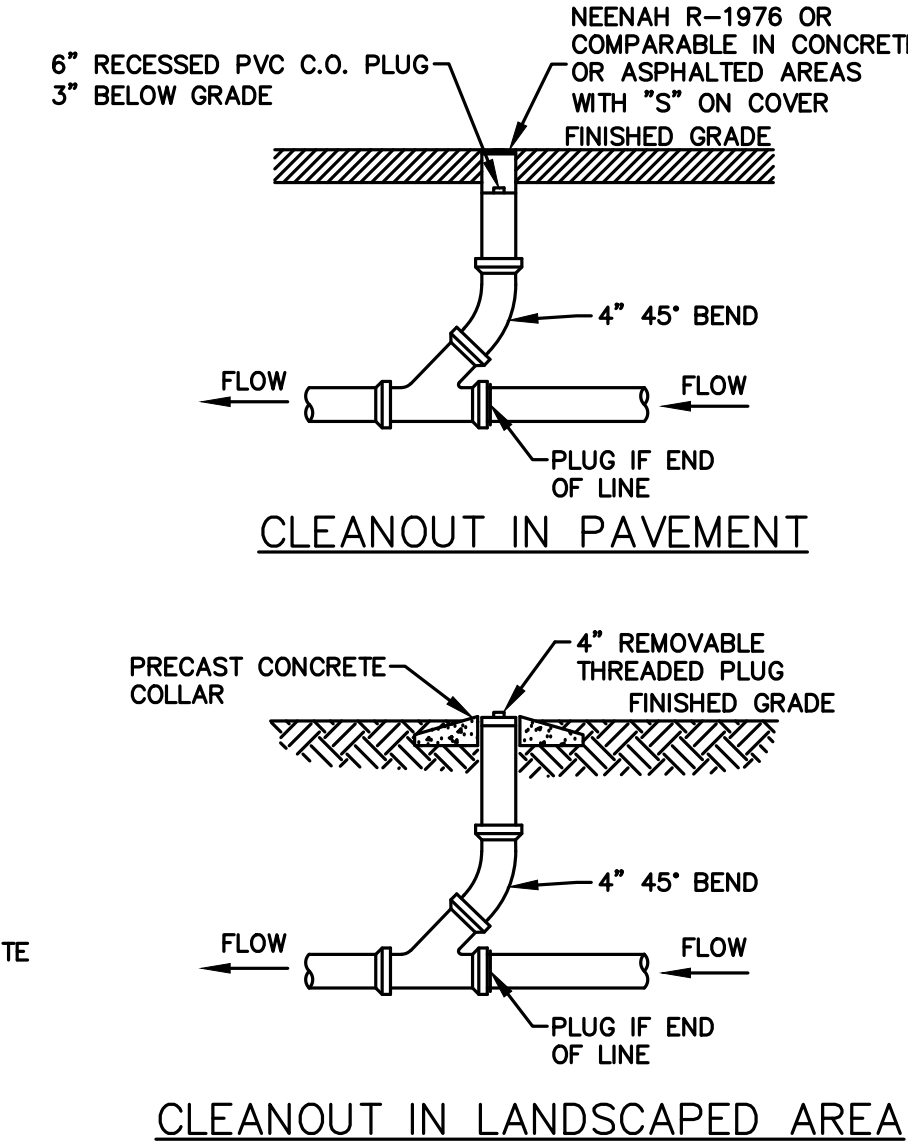
- NOTES:
1. NEOPRENE BOOT, KOR-N-SEAL OR EQUAL, TO BE USED ON ALL PRECAST MANHOLES WITH ALL TYPES OF PIPES.
 2. EXTERNAL BAND (300-SERIES NON-MAGNETIC CORROSION-RESISTANT STEEL).
 3. KORBAND (6061-T6 ALUMINUM ALLOY WITH A BLACK ANODIZED SURFACE).



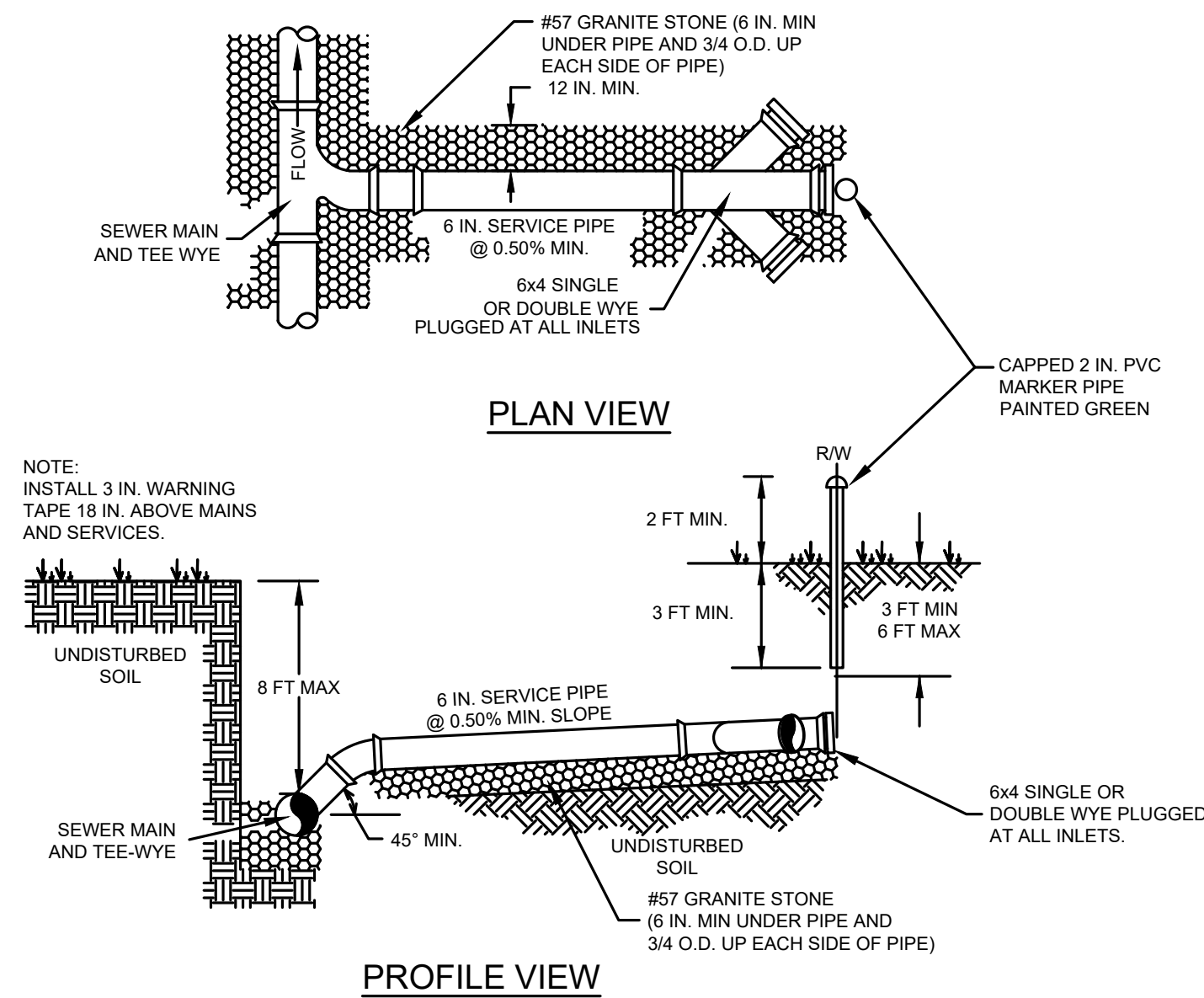
TYPICAL PARTS



CLEANOUT DETAIL
NOT TO SCALE



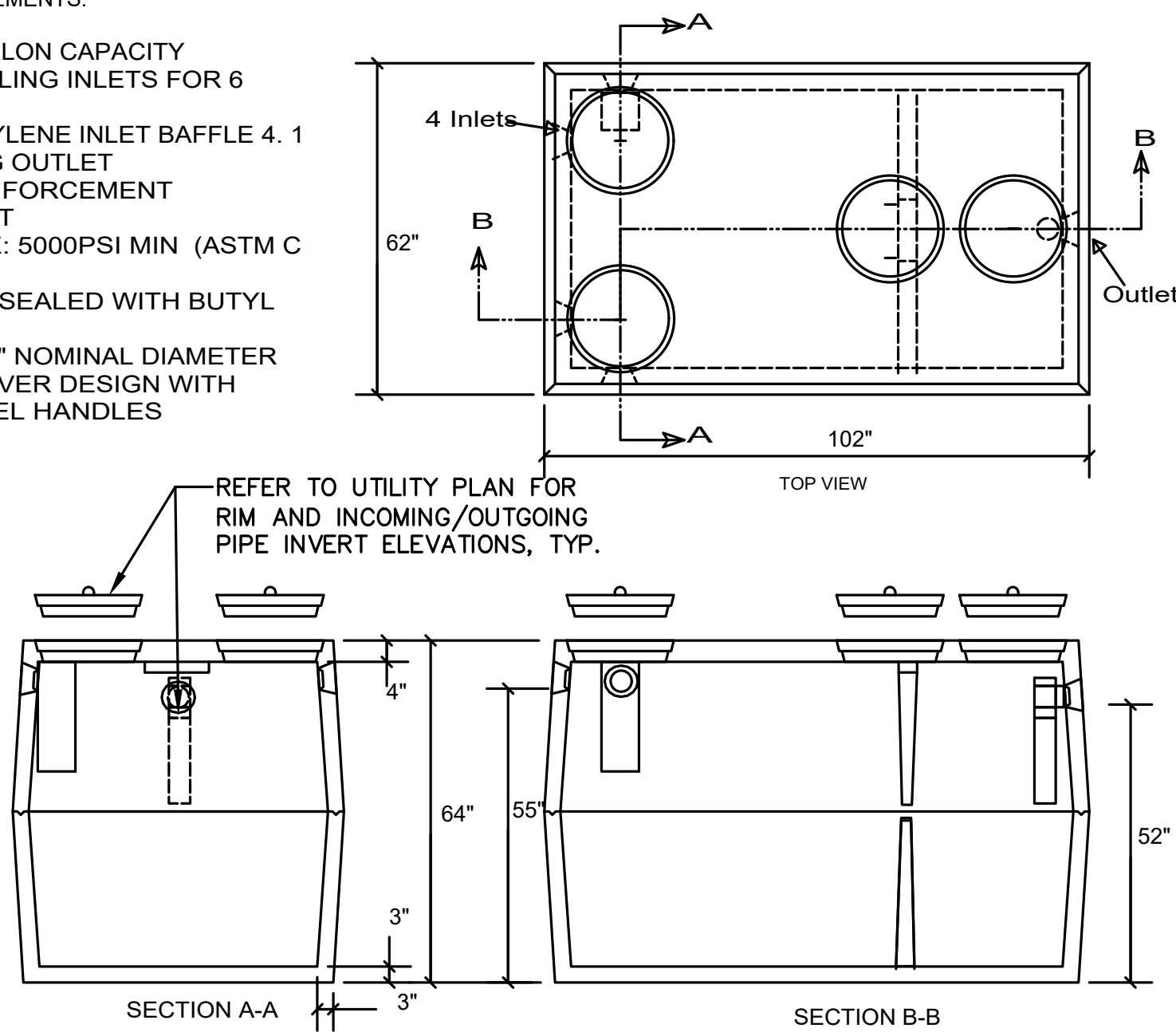
TYPICAL SHALLOW SEWER SERVICE CONSTRUCTION DETAIL
NOT TO SCALE



<div>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</div>	DESIGNED:	JTP	SUB SHEET NO. C5. 04	TITLE OF SHEET UTILITY DETAILS 2	DRAWING NO.
	CADD:	JTP			161
	TECH. REVIEW:	KV			160151
	DATE:	11/13/2020			PMIS/PKG NO.
					251144B
					SHEET
				NPS DSC CHRI SALT RIVER VC	— OF XXX

NOTES /REQUIREMENTS:

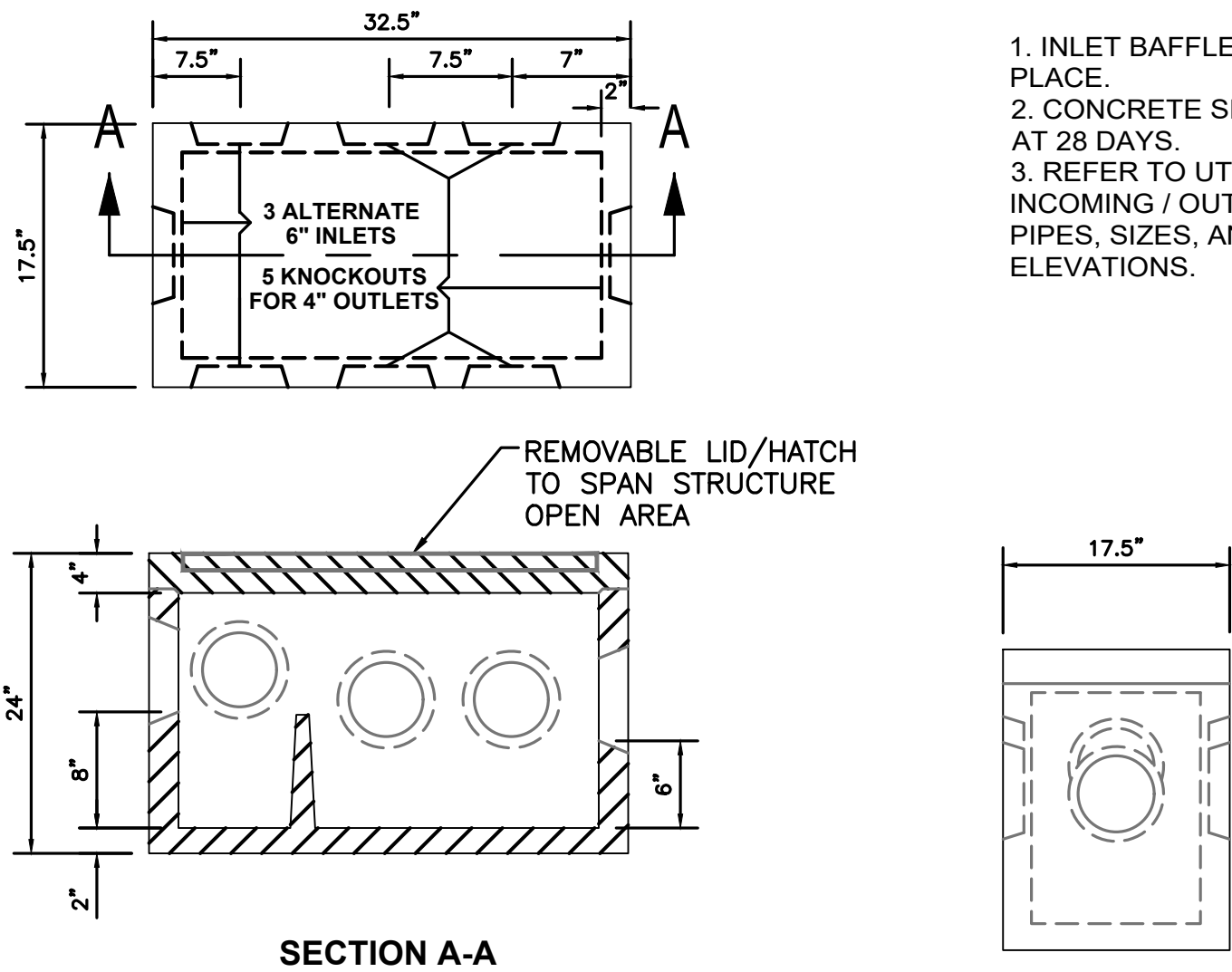
1. 1000 US GALLON CAPACITY
2. 4 SELF SEALING INLETS FOR 6 INCH PIPE
3. POLYPROPYLENE INLET BAFFLE 4. 1 SELF SEALING OUTLET
5. FIBER REINFORCEMENT THROUGHOUT
6. CONCRETE: 5000PSI MIN (ASTM C 1227)
7. T&G JOINT SEALED WITH BUTYL SEALANT
8. COVERS 18" NOMINAL DIAMETER
9. NO JAM COVER DESIGN WITH COATED STEEL HANDLES



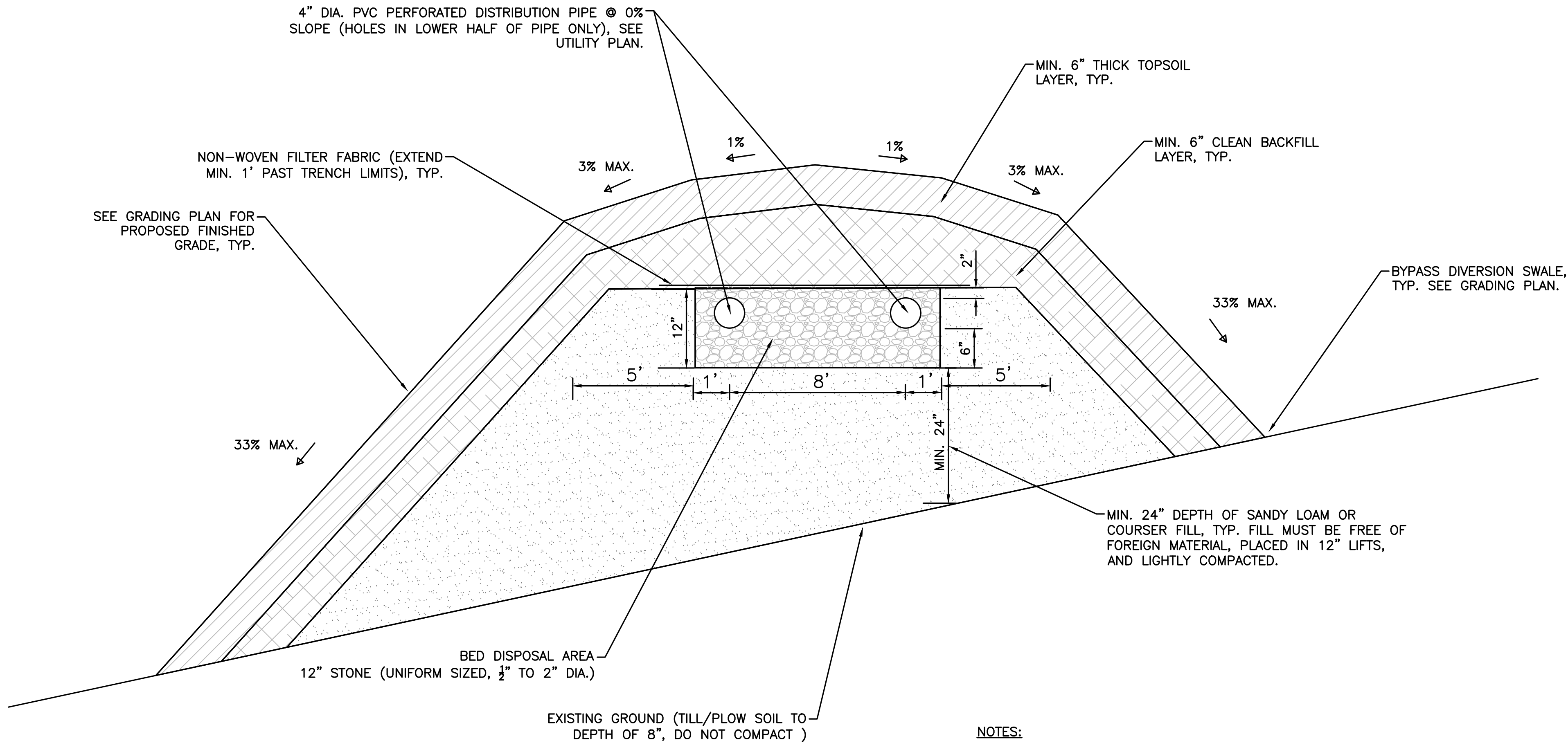
1,000 GALLON 2-COMPARTMENT SEPTIC TANK
NOT TO SCALE

NOTES /REQUIREMENTS:

1. INLET BAFFLE TO BE CAST IN PLACE.
2. CONCRETE SHALL BE MIN. 5,000 PSI AT 28 DAYS.
3. REFER TO UTILITY PLAN FOR INCOMING / OUTGOING CONNECTION PIPES, SIZES, AND INVERT ELEVATIONS.



SEPTIC DISTRIBUTION BOX
NOT TO SCALE



NOTES:

1. METHODS OF CONSTRUCTION WHICH PRECLUDE VEHICULAR COMPACTION OF THE DISPOSAL AREA MUST ALWAYS BE UTILIZED.
2. DO NOT CUT, FILL, BULLDOZE, SCRAPE OR CHANGE THE GRADE OF THE NATURAL SOILS IN THE DISPOSAL AREA.
3. DO NOT INSTALL UNDER WET SOIL CONDITIONS.
4. NO PARKING, DRIVING, BUILDING, OR PAVING OVER THE DISPOSAL AREA IS ALLOWED BEFORE OR AFTER INSTALLATION.
5. REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEETS FOR REQUIRED PERMANENT SEEDING.

MOUNDED WASTE DISPOSAL AREA SECTION
NOT TO SCALE

DESIGNED:

JTP

CADD:

JTP

TECH. REVIEW:

KV

DATE:

11/13/2020

SUB SHEET NO.

C5.
05

TITLE OF SHEET

UTILITY DETAILS 3

NPS DSC CHRI SALT RIVER VC

DRAWING NO.

161

160151

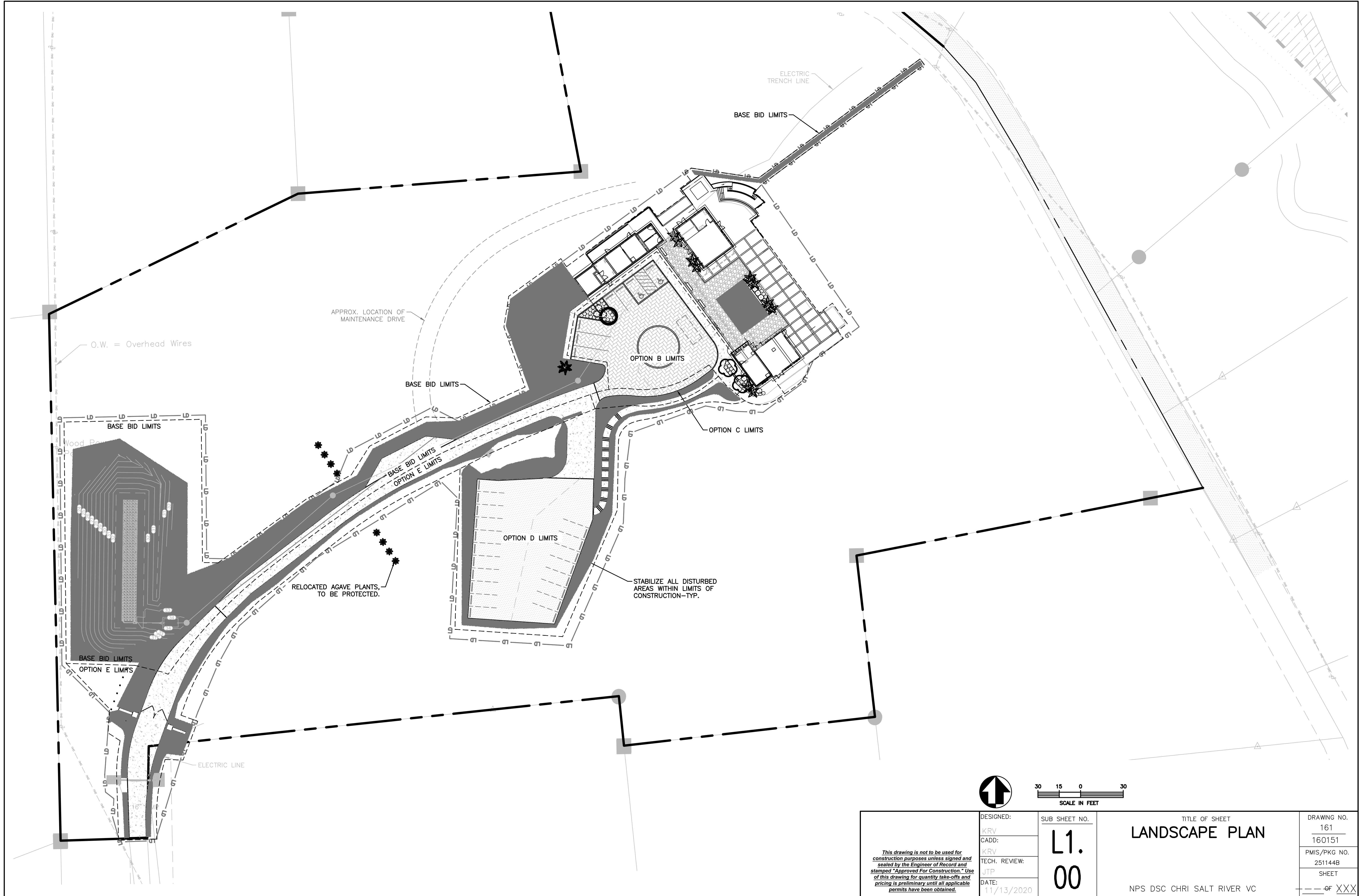
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251144B

SHEET

OF XXX

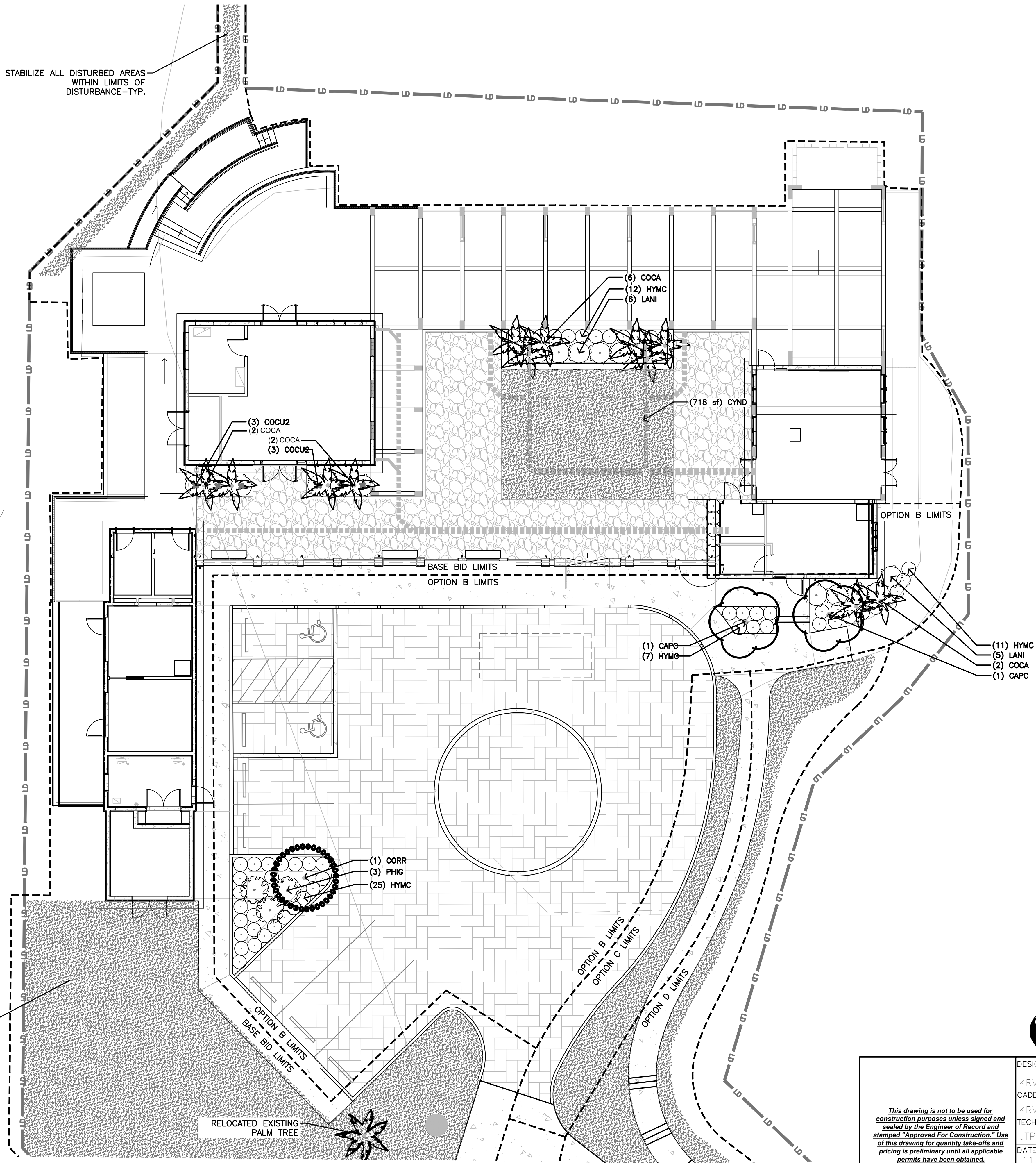
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2021/02/02 4:20 PM By: Vohngie, Kevin



<p><i>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</i></p>	DESIGNED:	SUB SHEET NO. L1. 00	TITLE OF SHEET LANDSCAPE PLAN	DRAWING NO. 161
	CADD:			160151
	TECH. REVIEW:			PMIS/PKG NO. 251144B
	DATE:			SHEET
	11/13/2020			— — — OF XXX
NPS DSC CHRI SALT RIVER VC				

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2021/02/02 4:20 PM By: Vonneg, Kevin

STABILIZE ALL DISTURBED AREAS
WITHIN LIMITS OF
DISTURBANCE-TYP.






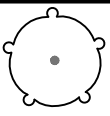
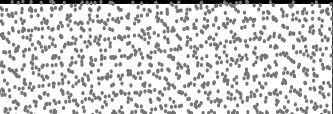
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	CADD:			160151
	TECH. REVIEW:			PMIS/PKG NO. 251144B
	DATE:			SHEET
	11/13/2020			— — — OF XXX
NPS DSC CHRI SALT RIVER VC				

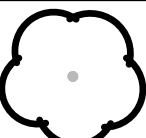

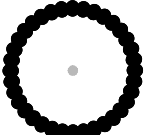

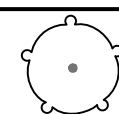
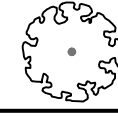
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2021/02/02 4:20 PM By: Vahaghe, Kevin

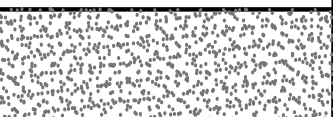
GENERAL LANDSCAPE NOTES:

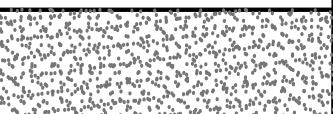
1. PLANTING MIX SHALL BE NATIVE SITE SOIL SALVAGED FROM SITE. CONTRACTOR SHALL SPREAD SALVAGED SITE TOPSOIL OVER ALL AREAS TO BE PLANTED AND REVEGETATED. MINIMUM DEPTH 3" IN STABILIZATION AREAS AND MINIMUM 6" IN AREAS WITH CONTAINER PLANTINGS.
2. IF PLANTING SOIL MIX IS DETERMINED NECESSARY IT SHOULD ONLY BE USED IN THE CONTAINER PLANT AREAS AND BE CERTIFIED WEED FREE. CONTRACTOR SHALL DECOMPACT ANY COMPACTED AREAS TO BE SEEDED AND CLASSIFIED AS "STABILIZATION PLANTINGS" TO A DEPTH OF 6–12 INCHES (PROVIDED STEEPNESS OF SLOPES ALLOW FOR DECOMPACTION EQUIPMENT USAGE). DECOMPACTION EQUIPMENT WILL BE USED IN SUCH A MANNER THAT RIPPING FURROWS ARE NO FURTHER THAN 6–9 INCHES APART AND, WHERE POSSIBLE, EQUIPMENT WILL TRAVEL ACROSS THE REVEGETATION SITE IN TWO (2) PASSES IN PERPENDICULAR DIRECTIONS. DECOMPACTED SOIL SHALL BE LEFT IN A ROUGHENED CONDITION (I.E. NOT TRACK WALKED, BUT ALSO NOT WITH SIZEABLE FURROWS). DECOMPACTION SHALL BE FOLLOWED BY SEEDING WITHIN 72 HOURS AND BEFORE ANY RAIN EVENTS. ANY PLANTING MIX SOIL MUST BE APPROVED BY THE CONTRACTING OFFICER (CO).
3. ALL LANDSCAPE BEDS AND TREE RINGS TO BE MULCHED TO A DEPTH OF 3" WITH A CERTIFIED WEED FREE MULCH. SUBMIT MULCH SAMPLE AND CERTIFICATION TO CO FOR APPROVAL PRIOR TO PLANTING OPERATIONS.
4. IMMEDIATELY MULCH AND WATER ALL PLANTS AND TREES OR COMPLETE WITHIN 16 HOURS AFTER INSTALLATION.
5. LANDSCAPE CONTRACTOR (CONTRACTOR) SHALL VISIT SITE, INSPECT EXISTING CONDITIONS, AND REVIEW PROPOSED PLANTINGS AND RELATED WORK. LANDSCAPE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS ON PROPERTY WITH THE GENERAL CONTRACTOR AND BY A UTILITY LOCATE SERVICE.
6. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES, CONTACT CONTRACTING OFFICER (CO) WITH ANY CONCERNS.
7. PLANT SUBSTITUTIONS MAY BE ALLOWED BY CONTRACT GROWER IN COORDINATION WITH NPS / CO IF REQUIRED DUE TO LIMITATIONS OF COLLECTING SEED, GROWING LIMITATIONS OR OTHER UNFORSEEN ISSUES. SUBSTITUTIONS MUST BE APPROVED BY CO.
8. NO PLANT MATERIAL SUBSTITUTIONS WILL BE ACCEPTED AT TIME OF INSTALLATION UNLESS APPROVAL IS REQUESTED OF THE CONTRACTING OFFICER BY THE LANDSCAPE CONTRACTOR PRIOR TO INSTALLATION.
9. ALL PLANT MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
10. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ON–GOING MAINTENANCE OF ALL NEWLY INSTALLED MATERIALS UNTIL TIME OF FINAL COMPLETION. ANY ACTS OF VANDALISM OR DAMAGE WHICH MAY OCCUR PRIOR TO OWNER ACCEPTANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR WEEDING AND WATERING PLANT MATERIAL THROUGH FINAL COMPLETION TO ENSURE PLANT ESTABLISHMENT, VIABILITY, AND HEALTHY GROWTH. CONTRACTOR SHALL SUBMIT WATERING METHOD FOR APPROVAL BY CO (TEMPORARY IRRIGATION SYSTEM, WATER TRUCK, ETC.) WEEDING SHALL BE CONDUCTED THROUGHOUT ALL SEEDED AND PLANTED AREAS. ALL NON–NATIVE PLANTS ARE TO BE REMOVED EITHER BY HAND PULLING OR HERBICIDE APPLICATION AND IF REPRODUCTIVE PARTS ARE PRESENT THEY SHALL BE BAGGED IN AT LEAST 3MM PLASTIC, SEALED, AND REMOVED FROM THE SITE.
12. WARRANTY FOR LANDSCAPE MATERIALS SHALL BEGIN ON THE DATE OF SUBSTANTIAL COMPLETION BY THE CONTRACTING OFFICER AFTER THE COMPLETION OF PLANTING OF ALL LANDSCAPE MATERIALS. NO PARTIAL ACCEPTANCE WILL BE CONSIDERED. LANDSCAPE CONTRACTOR SHALL PROVIDE A WRITTEN REQUEST FOR THE OWNER'S ACCEPTANCE INSPECTION. REMOVE AND

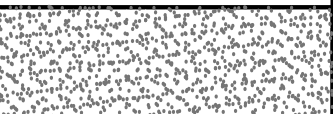
- REPLACE DEAD PLANT MATERIAL (25% + DEAD) IMMEDIATELY UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON. A LIMIT OF ONE REPLACEMENT OF EACH TREE AND SHRUB WILL BE REQUIRED, EXCEPT FOR LOSSES CAUSED BY CONTRACTOR'S ERRORS.
13. LANDSCAPE CONTRACTOR SHALL GUARANTEE NEW PLANT MATERIAL THROUGH ONE CALENDAR YEAR FROM THE DATE OF OWNER'S ACCEPTANCE WITH ALL REPLACEMENTS TO BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
14. CONTRACTOR SHALL FIELD ADJUST PLANT MATERIAL TO AVOID CONFLICTS WITH UTILITIES. PLANTS SHALL NOT OBSTRUCT TRANSFORMERS, DRAINAGE INLETS, HYDRANTS, ETC. REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO THE OWNER.
15. OWNER OR OWNER'S REPRESENTATIVE SHALL INSPECT LANDSCAPE INSTALLATION AND HAVE THE RIGHT TO REJECT AND WITHHOLD PAYMENT ON ANY PLANT MATERIAL(S) OF DAMAGED OR POOR QUALITY OR NOT MEETING SPECIFICATIONS.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR SOIL, EROSION, AND DUST CONTROL MEASURES PRIOR TO AND DURING CONSTRUCTION. THE LANDSCAPE CONTRACTOR SHALL PREVENT EROSION OF SOIL AND ENTRY OF SOIL–BEARING WATER AND AIRBORNE DUST ONTO ADJACENT PROPERTIES AND INTO STORM WATER FACILITIES. ALL EROSION CONTROL MATERIALS SHALL BE CERTIFIED WEED FREE AND MADE FROM NATURAL FIBER BIODEGRADABLE MATERIALS (NOT PHOTODEGRADABLE).
17. SEEDED AREAS WILL HAVE SEED SPREAD BY HAND / HAND SEEDERS, LIGHTLY RAKED INTO THE SOIL TO A DEPTH OF ¼" (LIGHT FURROWS IN THE SOIL ARE DESIRED), AND IRRIGATED FOR THE FIRST GROWING SEASON.
18. TEMPORARY BARRIERS / FENCING WILL BE REQUIRED AROUND PLANTINGS WHICH ARE SUSCEPTIBLE TO DEER/DONKEY BROWSE. INSTALL AFTER PLANTING AND REMOVE WHEN APPROVED BY CONTRACTING OFFICER.
19. NO PLANTING TO BE INSTALLED UNTIL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
20. IF THE LANDSCAPE CONTRACTOR PERCEIVES ANY DEFICIENCIES IN THE PLANT SELECTIONS, SOIL CONDITIONS, OR ANY OTHER SITE CONDITION WHICH MIGHT NEGATIVELY AFFECT PLANT MATERIAL ESTABLISHMENT, SURVIVAL, OR GUARANTEE, THEY SHALL BRING THESE DEFICIENCIES TO THE ATTENTION OF THE CO PRIOR TO INSTALLATION.
21. ALL PLANTS TO BE INSTALLED AS PER PLANTING DETAILS. PLANT MATERIALS ARE TO BE PLANTED IN THE SAME RELATIONSHIP TO GRADE AS WAS GROWN IN NURSERY CONDITIONS. ANY TREES PLANTED LOWER THAN EXISTING GRADE WILL BE REJECTED AND REINSTALLED AT THE CONTRACTOR'S EXPENSE. IF WET, CLAY SOILS OR POOR DRAINING SOILS ARE EVIDENT, PLANT HIGHER.
22. ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESS WATER FROM STANDING AROUND TREES AND SHRUBS.
23. REMOVE ALL TWINE, WIRE AND BURLAP FROM TOP 1/3 OF ROOT BALL AND FROM TREE TRUNKS.
24. SEED AND/OR SOD ALL AREAS DISTURBED DUE TO GRADING AND CONSTRUCTION ACTIVITIES. WHERE SOD/SEED ABUTS PAVED SURFACES, FINISHED GRADE OF SOD/SEED SHALL BE HELD 1" BELOW SURFACE ELEVATION OF TRAIL, SLAB, CURB, ETC.
25. REMOVE AND DISPOSE OF ALL CONSTRUCTION DEBRIS FROM PLANT BEDS AND TURF / GROUND COVER AREAS LARGER THAN 2" IN DIAMETER. REMOVE ALL HARD CLAY, STONES, OR SIMILAR LARGER THAN 2" DIAMETER.
26. PLANTING EFFORTS SHALL TAKE PLACE WITHIN THE PREFERRED PLANTING WINDOW FROM SEPTEMBER TO OCTOBER. SEEDING SHALL TAKE PLACE WITHIN THE PREFERRED WINDOW FROM JULY TO SEPTEMBER. A SECONDARY WINDOW MAY BE ACCEPTABLE FROM MAY TO JUNE WITH CO APPROVAL. PLANTING OUTSIDE THIS TIMEFRAME MUST BE APPROVED BY THE CONTRACTING OFFICER. PLANTING OUTSIDE THE PREFERRED WINDOWS COULD REQUIRE ADDITIONAL WATERING BY THE CONTRACTOR.

PLANT SCHEDULE BASE BID - BUILDING						
TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT		REMARKS
	COCA	10	COCCOTHRINAX ALTA / TYRE PALM	CONTAINER		
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT		REMARKS
	COCU2	6	COCCOLOBA UVIFERA / SEA GRAPE	CONTAINER		FULL TO GROUND
	HYMC	17	HYMENOCALLIS CARIBAEA / SPIDER LILY	CONTAINER		
	LANI	8	LANTANA INVOLUCRATA / WILD SAGE	CONTAINER		
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	REMARKS
	CYND	20,737 SF	CYNODON DACTYLON / BERMUDA GRASS	SEED		

PLANT SCHEDULE OPTION B - ADJACENT TO BUILDING						
TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT		REMARKS
	CAPC	2	CAPPARIS CYNOPHALLOPHORA / BLACK CAPER	CONTAINER		
	COCA	2	COCCOTHRINAX ALTA / TYRE PALM	CONTAINER		
	CORR	1	CORDIA RICKSECKERI / ORANGE MANJACK	CONTAINER		
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT		REMARKS
	HYMC	43	HYMENOCALLIS CARIBAEA / SPIDER LILY	CONTAINER		
	LANI	5	LANTANA INVOLUCRATA / WILD SAGE	CONTAINER		
	PHIG	3	PHILODENDRON GIGANTEUM / GIANT PHILODENDRON	CONTAINER		

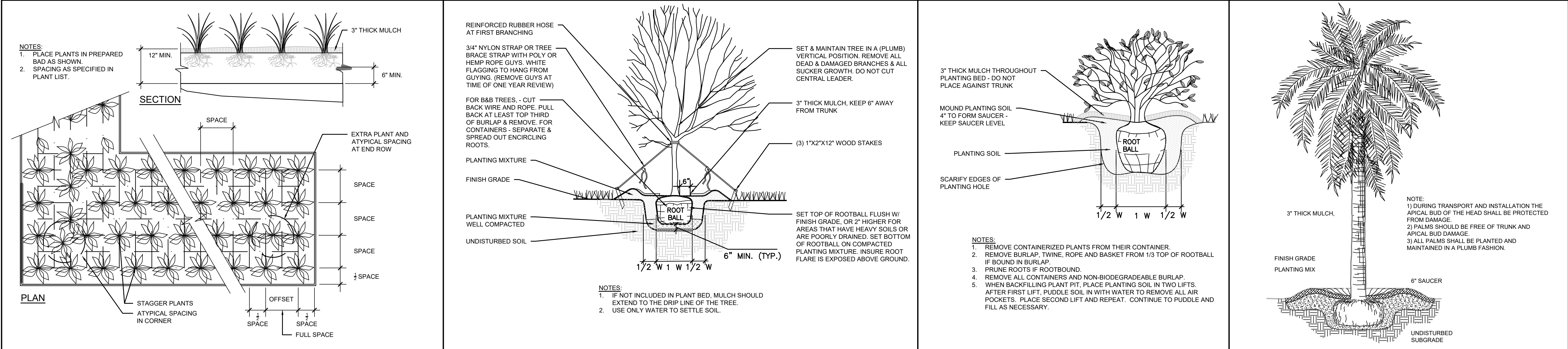
PLANT SCHEDULE OPTION C - UPPER PARKING						
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	REMARKS
	CYND	413 SF	CYNODON DACTYLON / BERMUDA GRASS	SEED		

PLANT SCHEDULE OPTION D - LOWER PARKING						
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	REMARKS
	CYND	3,477 SF	CYNODON DACTYLON / BERMUDA GRASS	SEED		

PLANT SCHEDULE OPTION E - DRIVEWAY						
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	REMARKS
	CYND	3,070 SF	CYNODON DACTYLON / BERMUDA GRASS	SEED		

<div><div>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</div></div>	DESIGNED: KRV	SUB SHEET NO. <div>L1. 02</div>	TITLE OF SHEET <div>LANDSCAPE NOTES AND SCHEDULE</div>	DRAWING NO. 161 160151
	CADD: KRV			PMIS/PKG NO. 251144B
	TECH. REVIEW: JTP			SHEET
	DATE: 11/13/2020			OF XXX

NPS DSC CHRI SALT RIVER VC



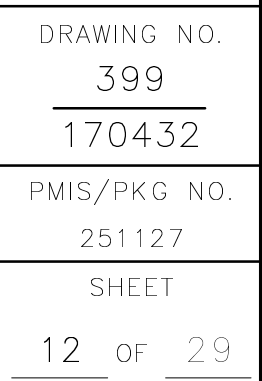
1	GROUNDCOVER PLANTING DETAIL	2	TREE PLANTING DETAIL	3	SHRUB PLANTING DETAIL	4	PALM TREE PLANTING DETAIL
	NTS		NTS		NTS		NTS



5	MULTI-STEM TREE PLANTING DETAIL
	NTS

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2021/02/02 4:21 PM By: Vahaghe, Kevin

<p><i>This drawing is not to be used for construction purposes unless signed and sealed by the Engineer of Record and stamped "Approved For Construction." Use of this drawing for quantity take-offs and pricing is preliminary until all applicable permits have been obtained.</i></p>	DESIGNED: KRV	SUB SHEET NO. L1. 03	TITLE OF SHEET LANDSCAPE DETAILS	DRAWING NO. 161
	CADD: KRV			160151
	TECH. REVIEW: JTP			PMIS/PKG NO. 251144B
	DATE: 11/13/2020			SHEET
	NPS DSC CHRI SALT RIVER VC			— — — OF XXX



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- The diagram illustrates the experimental setup for the study. It is divided into two main sections: CALLOUT 1 and CALLOUT 2, separated by a dashed line. CALLOUT 1 contains a grid of squares (A, B, C, D, E, F, G, H, I) and a shaded area. CALLOUT 2 contains a grid of squares (A, B, C, D, E, F, G, H, I) and a shaded area. A compass rose indicates the orientation of the setup.

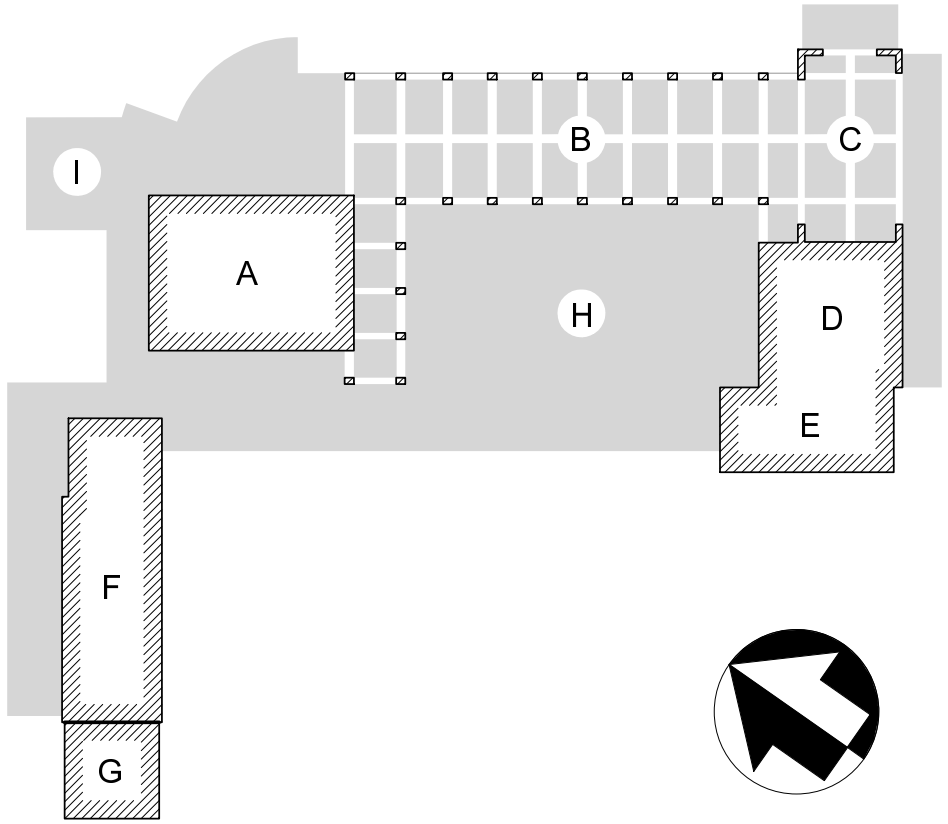
SHEET NOTES

- GC TO SURVEY FLOOR SLAB FOR LEVELNESS AND NOTIFY ARCHITECT IN ALL AREAS THAT FALL OUTSIDE OF THE ACCEPTABLE RANGE.
- GC TO PROVIDE FIRE RETARDANT BLOCKING AT ALL WALL MOUNTED EQUIPMENT. COORDINATE WITH AV CONTRACTOR. ALL BLOCKING TO BE FIRE RETARDANT TREATED WOOD.
- ALL VENTS, LOUVERS, AND OVERFLOW OUTLETS TO HAVE INSECT SCREENING.
- ALL CONCRETE STRUCTURAL ELEMENTS IN AREAS B,C, & D TO RECEIVE STUCCO COATING WITH INTEGRAL COLOR - ALL SIDES
- ALL EXTERIOR OPENINGS TO BE IMPACT RATED ALUMINUM WINDOW/DOOR ASSEMBLIES
- LOCATE CONCRETE COLUMNS AT EXISTING COLUMN LOCATIONS OR EXISTING WALLS BELOW AND TIE INTO EXISTING FOUNDATIONS. SEE STRUCTURAL DRAWINGS FOR REQUIREMENTS.
- PROVIDE MINIMUM 1-1/2" THICKNESS BRUSHED FINISH TOPPING SLAB AT ALL EXTERIOR SLABS. BUILD UP TO ACHIEVE SLOPES AS INDICATED.

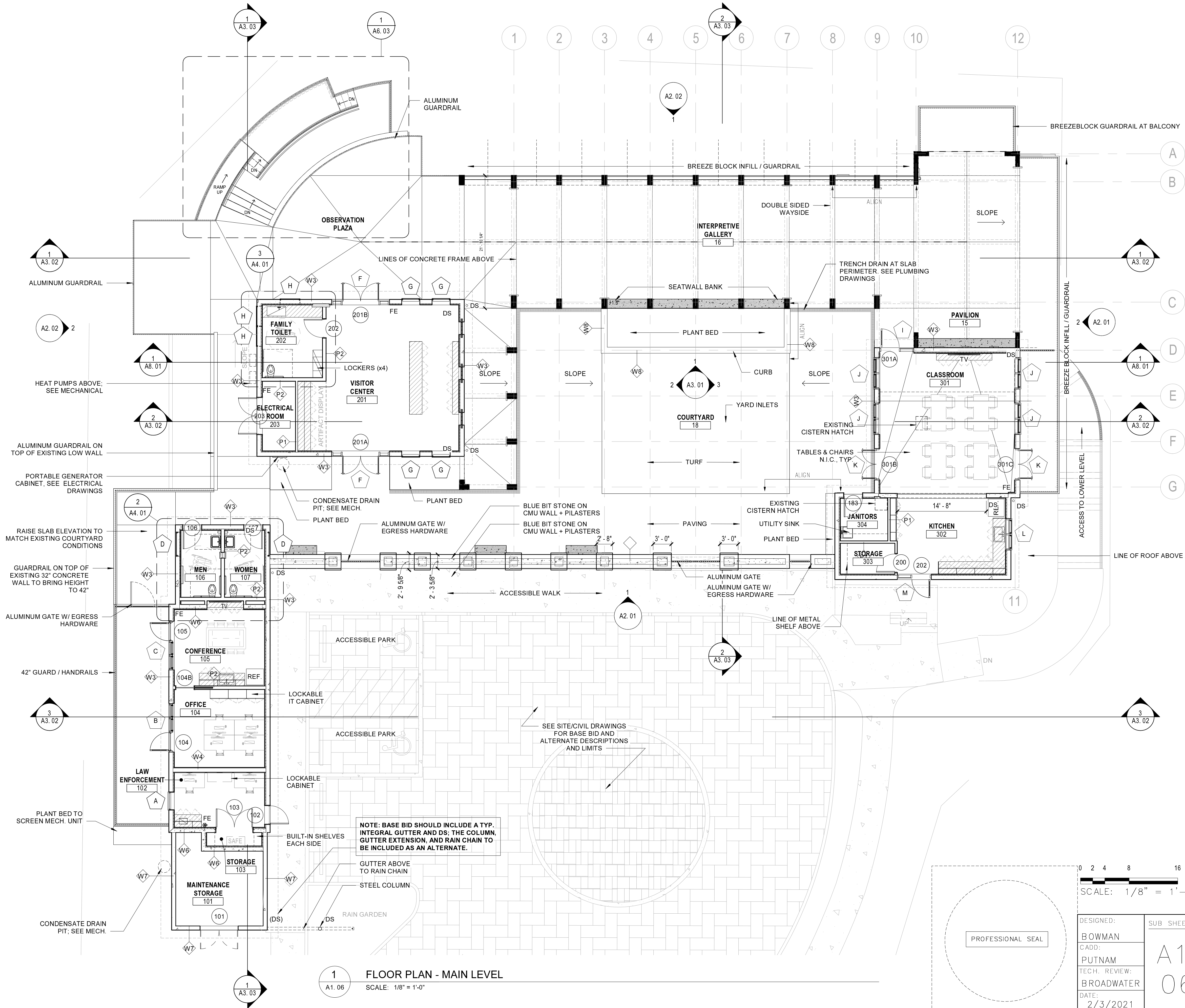
LEGEND

PARTITIONS		WALL/PARTITION PER BUILDING ASSEMBLIES
		2-HOUR RATED PARTITION
SYMBOLS		FIRE EXTINGUISHER CABINET
		MILLWORK
		DASHED FURNITURE - N.I.C.
		BREEZEBLOCK
		STONE BENCH W/ CAST STONE SEAT

KEY PLAN



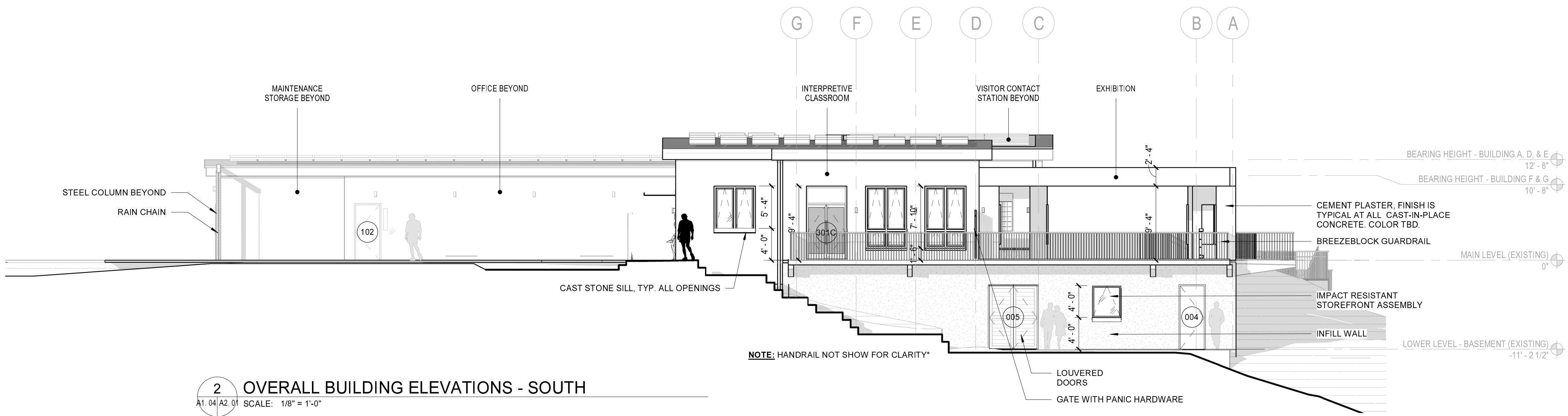
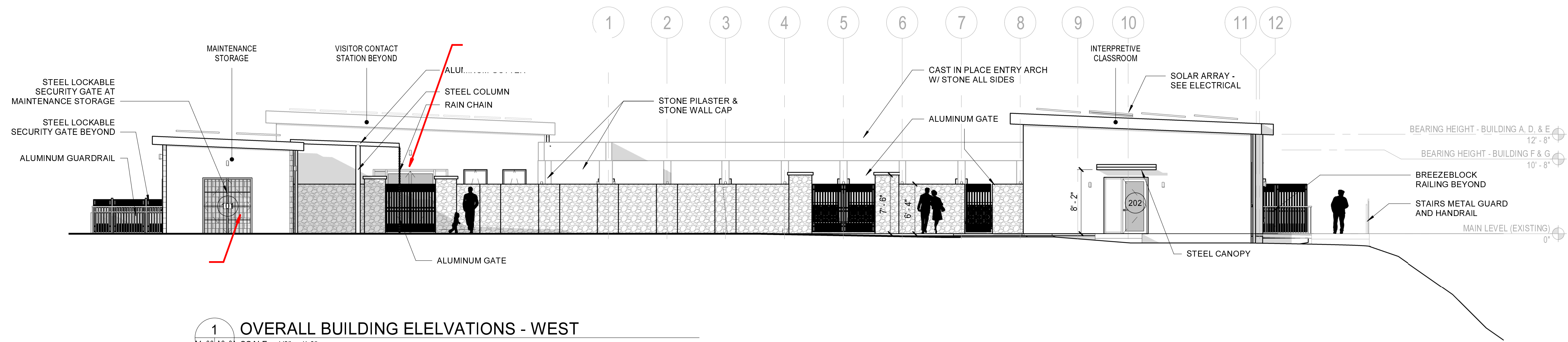
DESIGNED: BOWMAN CADD: PUTNAM TECH. REVIEW: BROADWATER DATE: 2/3/2021	SUB SHEET NO. A1. 06	TITLE OF SHEET FLOOR PLAN - MAIN LEVEL SALT RIVER BAY NATIONAL HISTORICAL PARK REHABILITATE SALT RIVER VISITOR CONTACT STATION	DRAWING NO. 399 170432 PMIS/PKG NO. 251127 SHEET 14 OF 29
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FLOOR PLAN - MAIN LEVEL

SCALE: 1/8" = 1'-0"

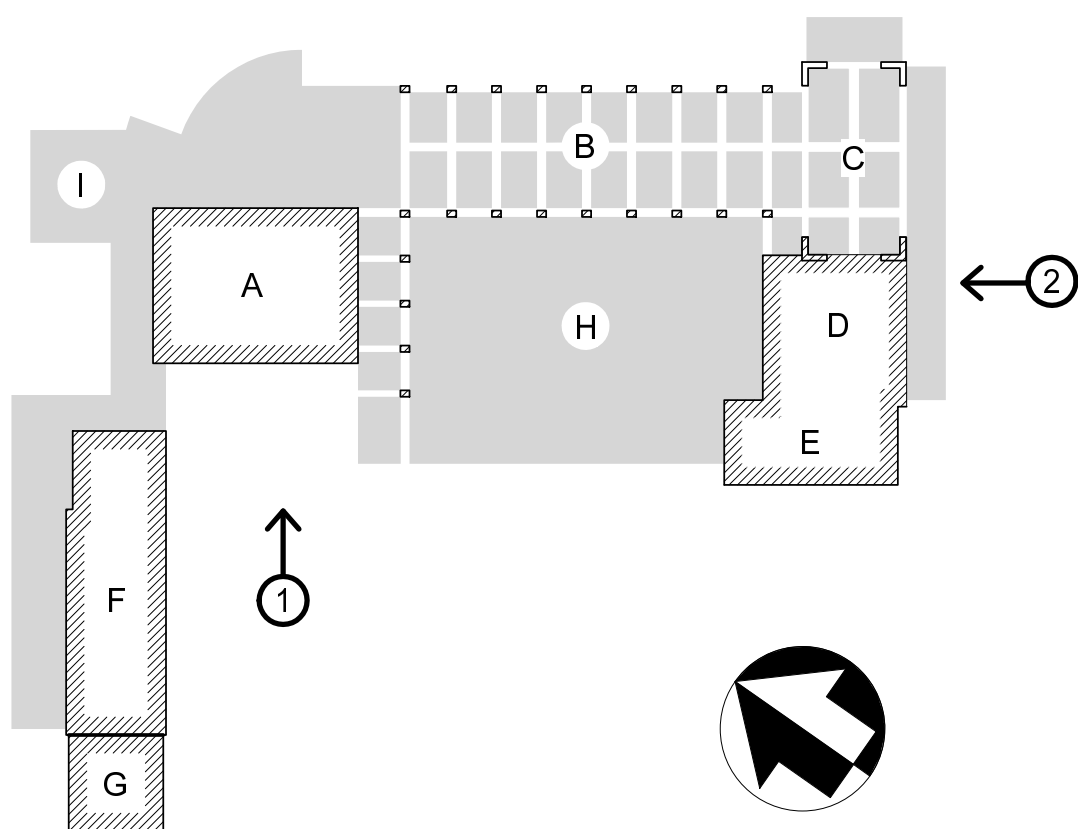
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SHEET NOTES

1. CONCEPTUAL GRADING SHOWN FOR ILLUSTRATIVE PURPOSES - SEE CIVIL DRAWINGS & SPECIFICATIONS.
2. ALL VENTS, LOUVERS, AND OVERFLOW OUTLETS TO HAVE INSECT SCREENING.
3. ALL CONCRETE STRUCTURAL ELEMENTS IN AREAS B, C, & D TO RECEIVE STUCCO COATING WITH INTEGRAL COLOR - ALL SIDES
4. ALL EXTERIOR OPENINGS TO BE IMPACT RATED ALUMINUM WINDOW / DOOR ASSEMBLIES.
5. ALL EXTERIOR METAL GUARDRAILS & HANDRAILS TO BE SHOP PRIMED, AND FIELD PAINTED, SEE SPECIFICATION.

KEY PLAN



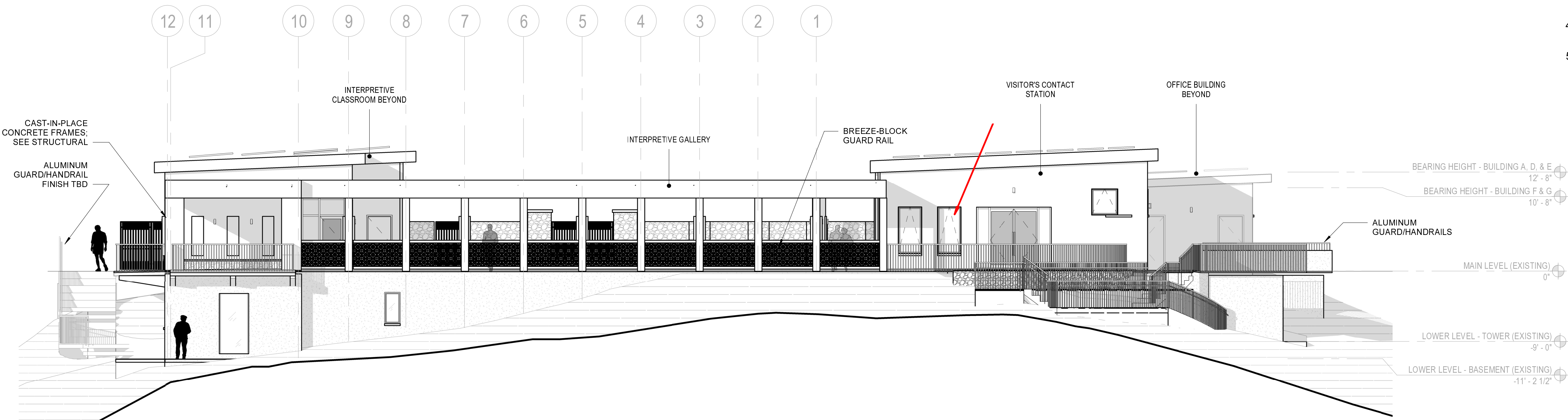
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CADD: PUTNAM/BECK				
TECH. REVIEW: BROADWATER				
DATE: 2/3/2021				
DATE: 2/3/2021				

SCALE: 1/8" = 1'-0"

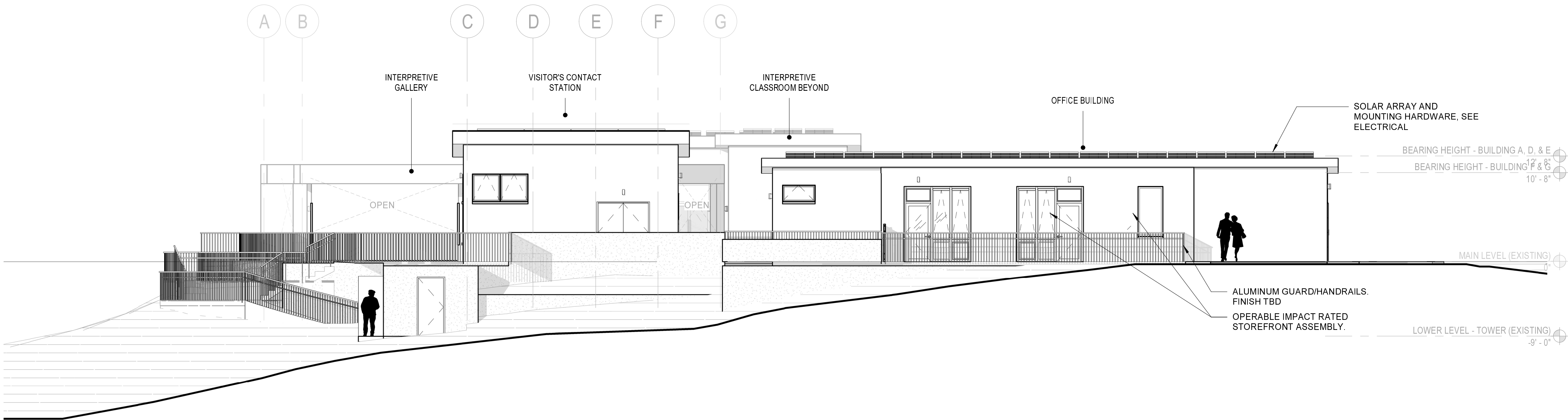
PROFESSIONAL SEAL

SHEET NOTES

- 1. CONCEPTUAL GRADING SHOWN FOR ILLUSTRATIVE PURPOSES - SEE CIVIL DRAWINGS & SPECIFICATIONS.
- 2. ALL VENTS, LOUVERS, AND OVERFLOW OUTLETS TO HAVE INSECT SCREENING.
- 3. ALL CONCRETE STRUCTURAL ELEMENTS IN AREAS B, C, & D TO RECEIVE STUCCO COATING WITH INTEGRAL COLOR - ALL SIDES
- 4. ALL EXTERIOR OPENINGS TO BE IMPACT RATED ALUMINUM WINDOW / DOOR ASSEMBLIES.
- 5. ALL EXTERIOR METAL GUARDRAILS & HANDRAILS TO BE SHOP PRIMED, AND FIELD PAINTED, SEE SPECIFICATION.

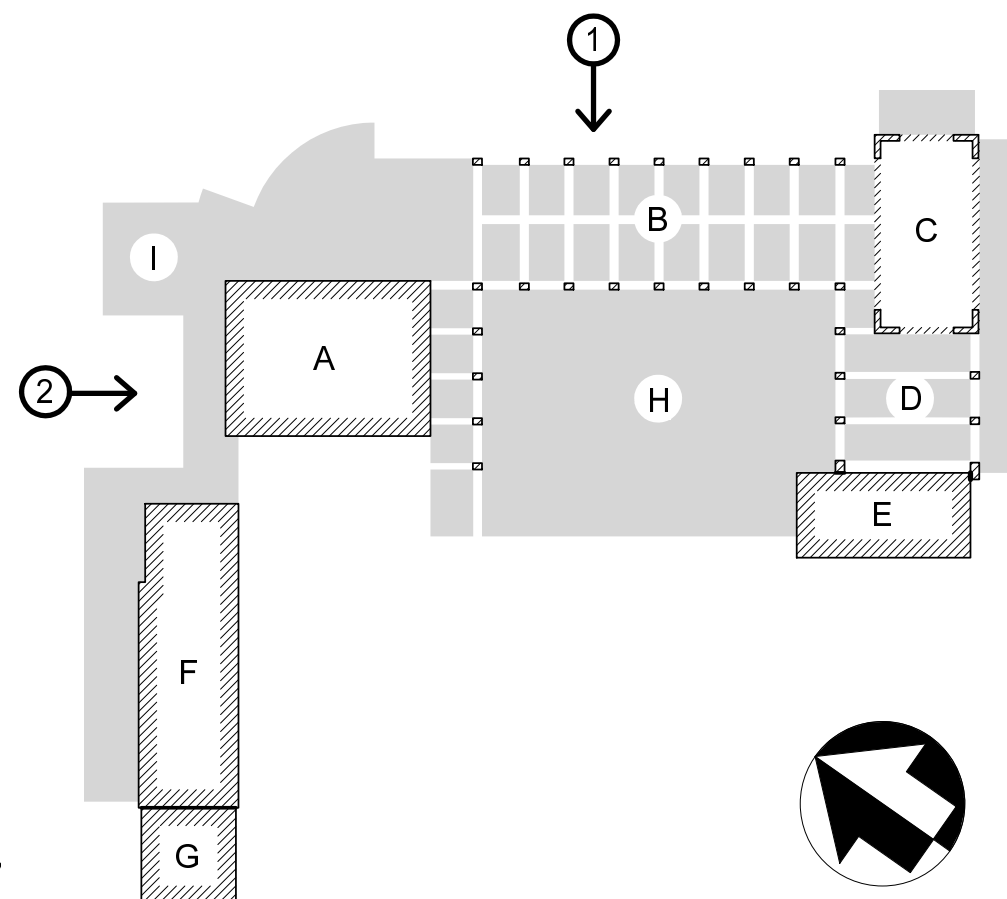


1 OVERALL BUILDING ELEVATIONS - EAST
A1.06/A2.02 SCALE: 1/8" = 1'-0"



2 OVERALL BUILDING ELEVATIONS - NORTH
A1.04/A2.02 SCALE: 1/8" = 1'-0"

KEY PLAN



SCALE: 1/8" = 1'-0"

PROFESSIONAL SEAL

DESIGNED:
BOWMAN
CADD:
PUTNAM/BECK
TECH. REVIEW:
BROADWATER
DATE:
2/3/2021

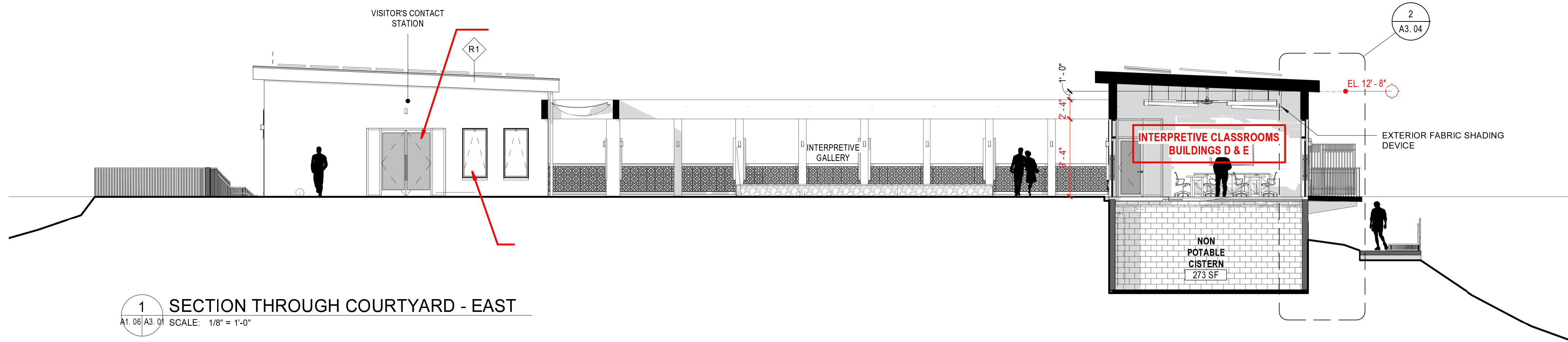
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A2.
02

TITLE OF SHEET
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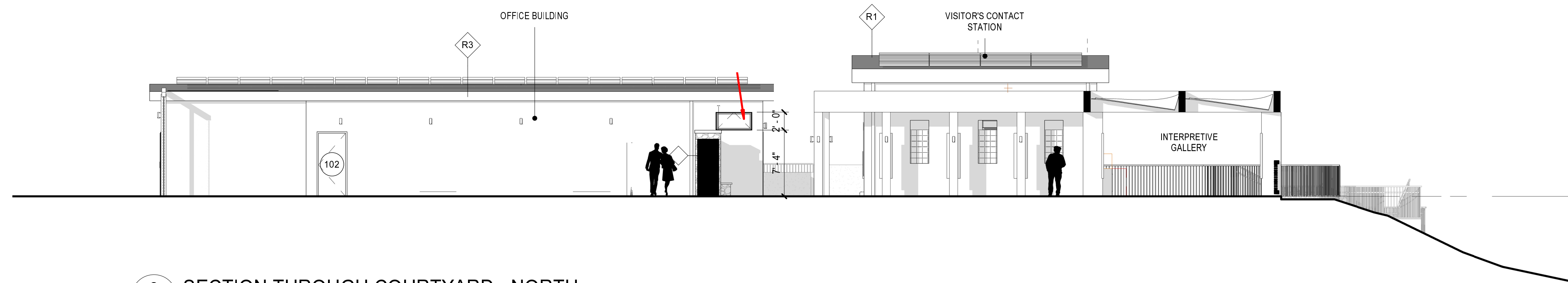
SALT RIVER BAY NATIONAL HISTORICAL PARK
REHABILITATE SALT RIVER VISITOR CONTACT STATION

DRAWING NO.
399
170432
PMIS/PKG NO.
251127
SHEET
18 OF 29

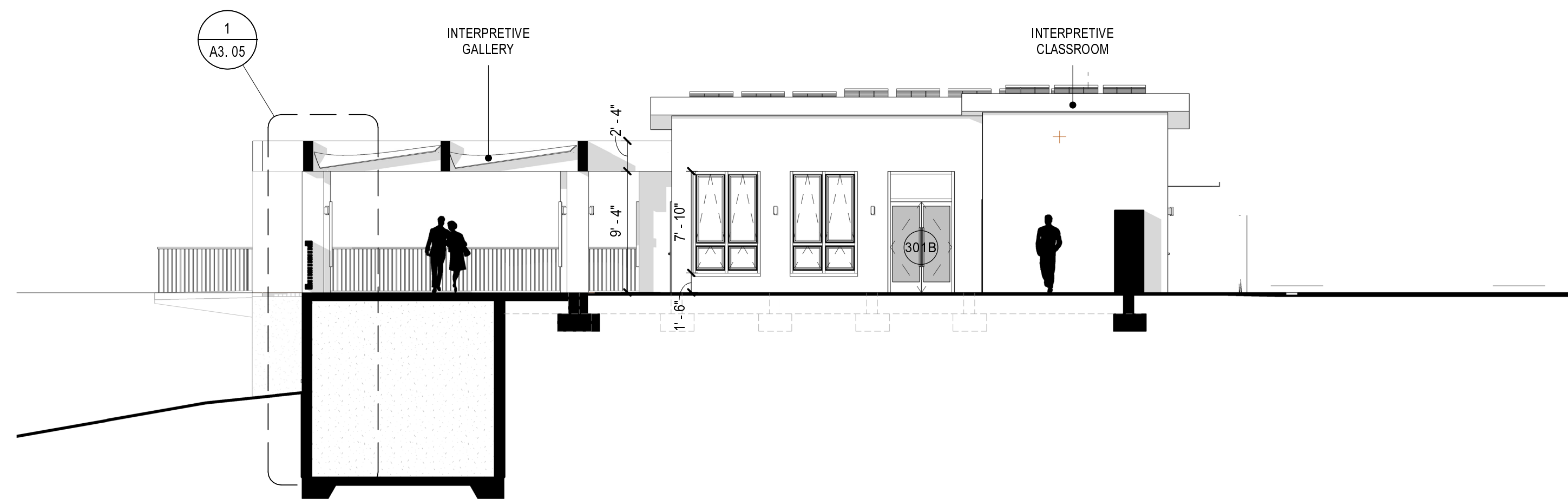
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1 SECTION THROUGH COURTYARD - EAST
A1.06/A3.01 SCALE: 1/8" = 1'-0"



2 SECTION THROUGH COURTYARD - NORTH
A1.06/A3.01 SCALE: 1/8" = 1'-0"

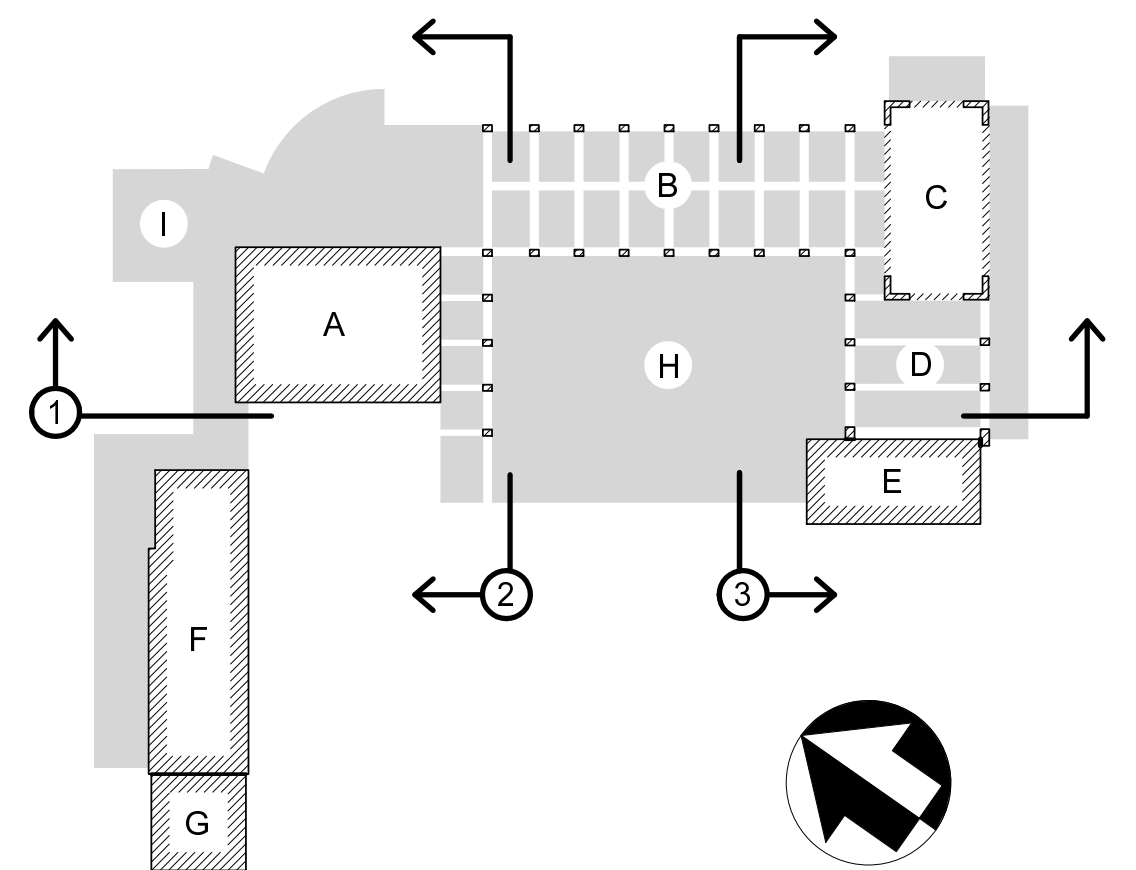


3 SECTION THROUGH COURTYARD - SOUTH
A1.06/A3.01 SCALE: 1/8" = 1'-0"

SHEET NOTES

1. CONCEPTUAL GRADING SHOWN FOR ILLUSTRATIVE PURPOSES - SEE CIVIL DRAWINGS & SPECIFICATIONS.
2. ALL VENTS, LOUVERS, AND OVERFLOW OUTLETS TO HAVE INSECT SCREENING.
3. ALL CONCRETE STRUCTURAL ELEMENTS IN AREAS B, C, & D TO RECEIVE STUCCO COATING WITH INTEGRAL COLOR - ALL SIDES
4. ALL EXTERIOR OPENINGS TO BE IMPACT RATED ALUMINUM WINDOW / DOOR ASSEMBLIES.

KEY PLAN



0 2 4 8 16
SCALE: 1/8" = 1'-0"

PROFESSIONAL SEAL

DESIGNED:
BOWMAN
CADD:
PUTNAM/BECK
TECH. REVIEW:
BROADWATER
DATE:
2/3/2021

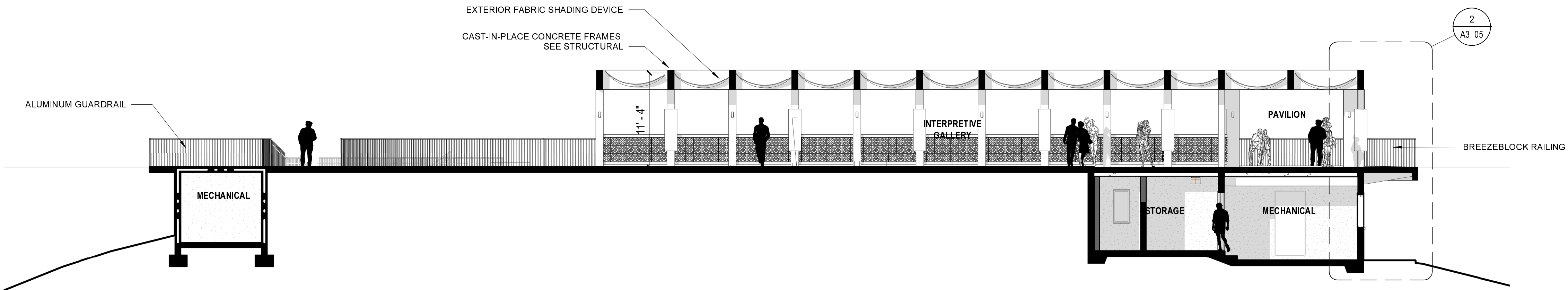
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TITLE OF SHEET
SECTIONS

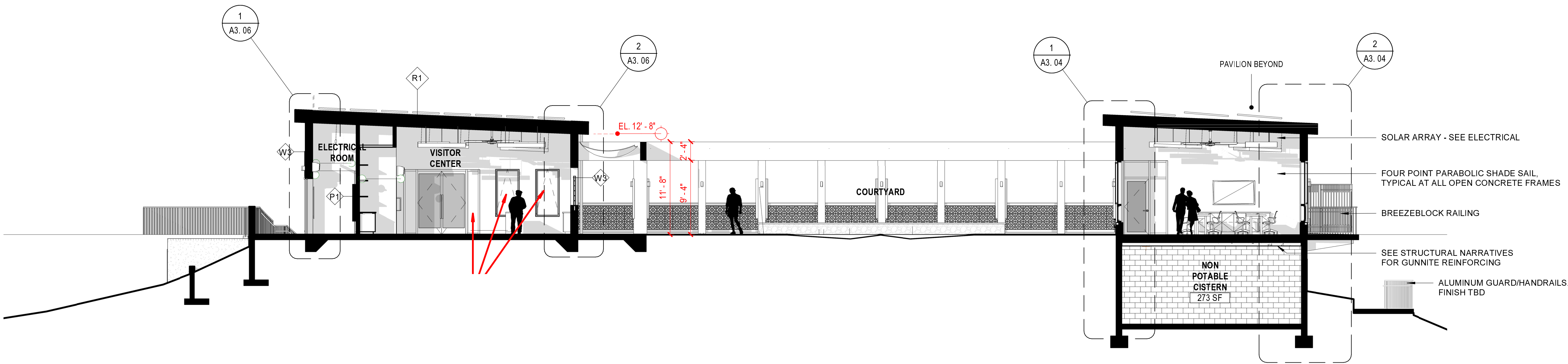
SALT RIVER BAY NATIONAL HISTORICAL PARK
REHABILITATE SALT RIVER VISITOR CONTACT STATION

DRAWING NO.
399
170432
PMIS/PKG NO.
251127
SHEET
19 OF 29

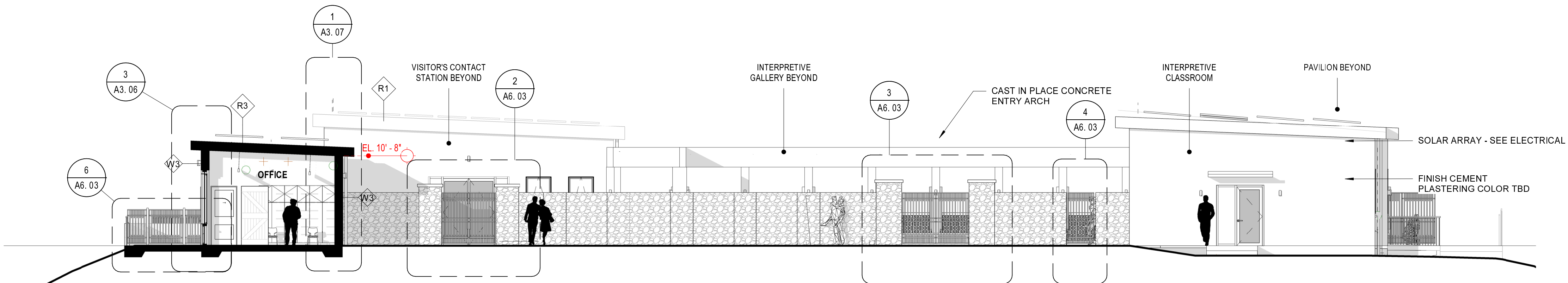
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1 SECTION - THROUGH GALLERY
A1.04/A3.02 SCALE: 1/8" = 1'-0"



2 SECTION - THROUGH VCS
A1.04/A3.02 SCALE: 1/8" = 1'-0"

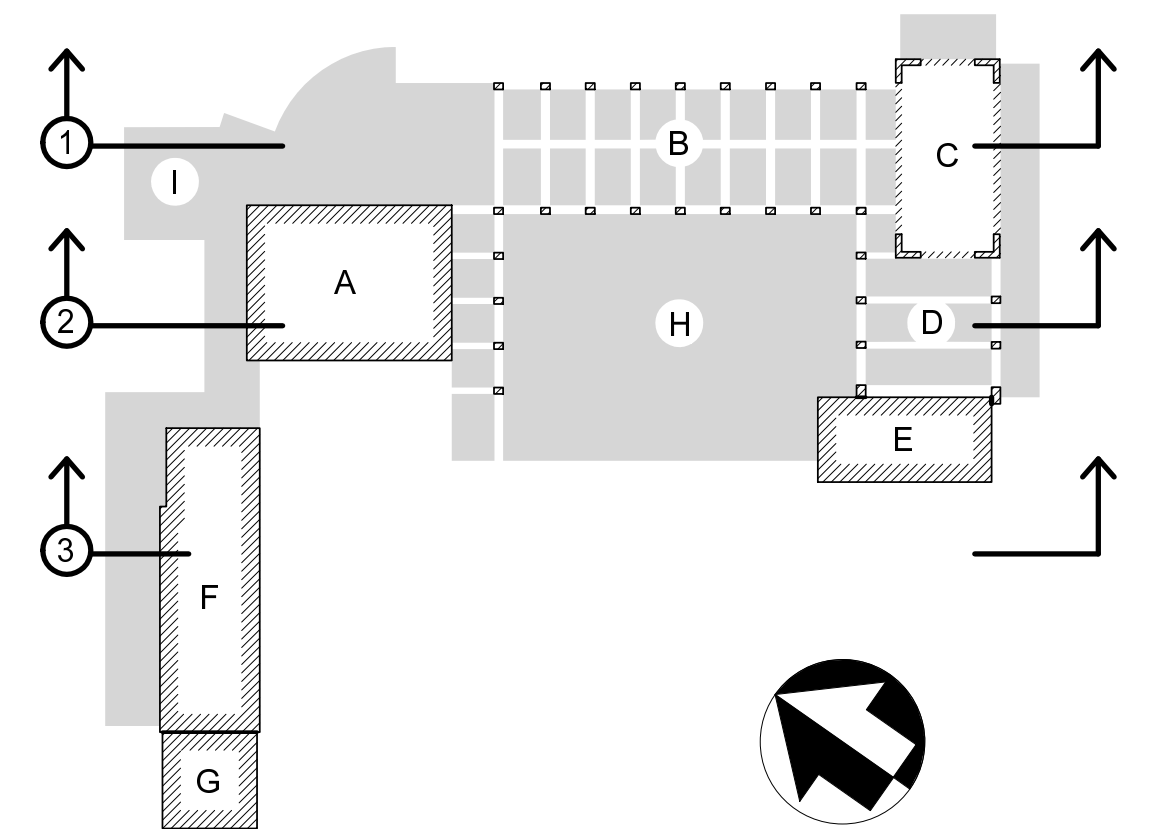


3 SECTION - THROUGH PARKING
A1.06/A3.02 SCALE: 1/8" = 1'-0"

SHEET NOTES

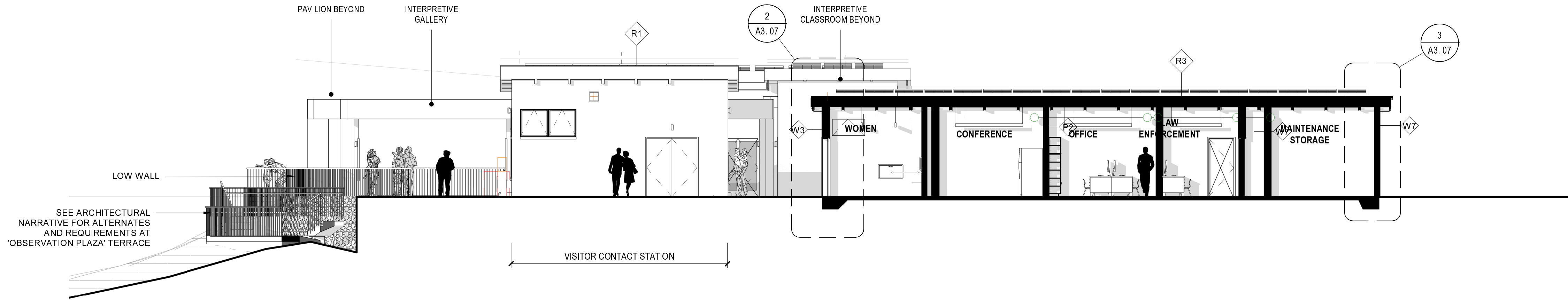
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2. REFER TO ARCHITECTURAL NARRATIVES FOR BUILDING ASSEMBLY BASIS OF DESIGNS

KEY PLAN

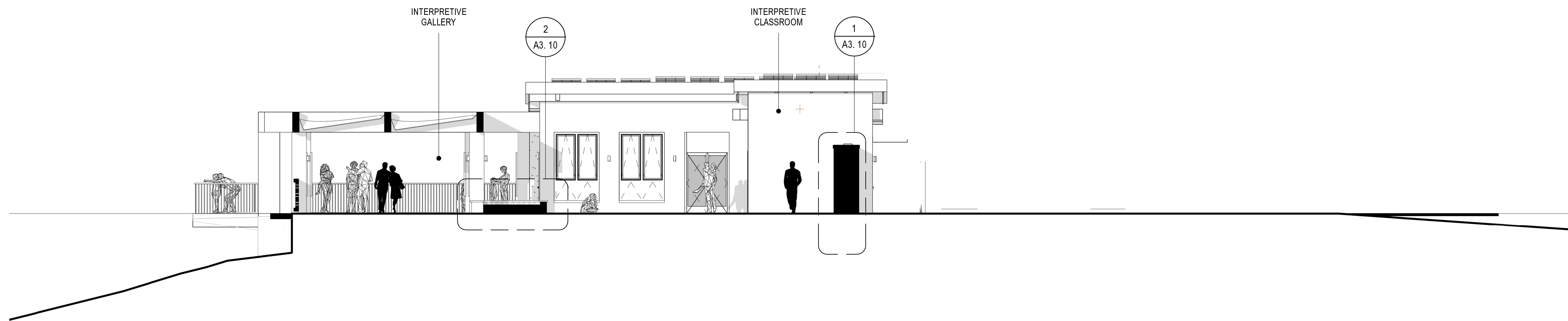


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TECH. REVIEW: BROADWATER				
DATE: 2/3/2021				
PROFESSIONAL SEAL				

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1 SECTION - THROUGH OFFICE
A1.06/A3.03 SCALE: 1/8" = 1'-0"

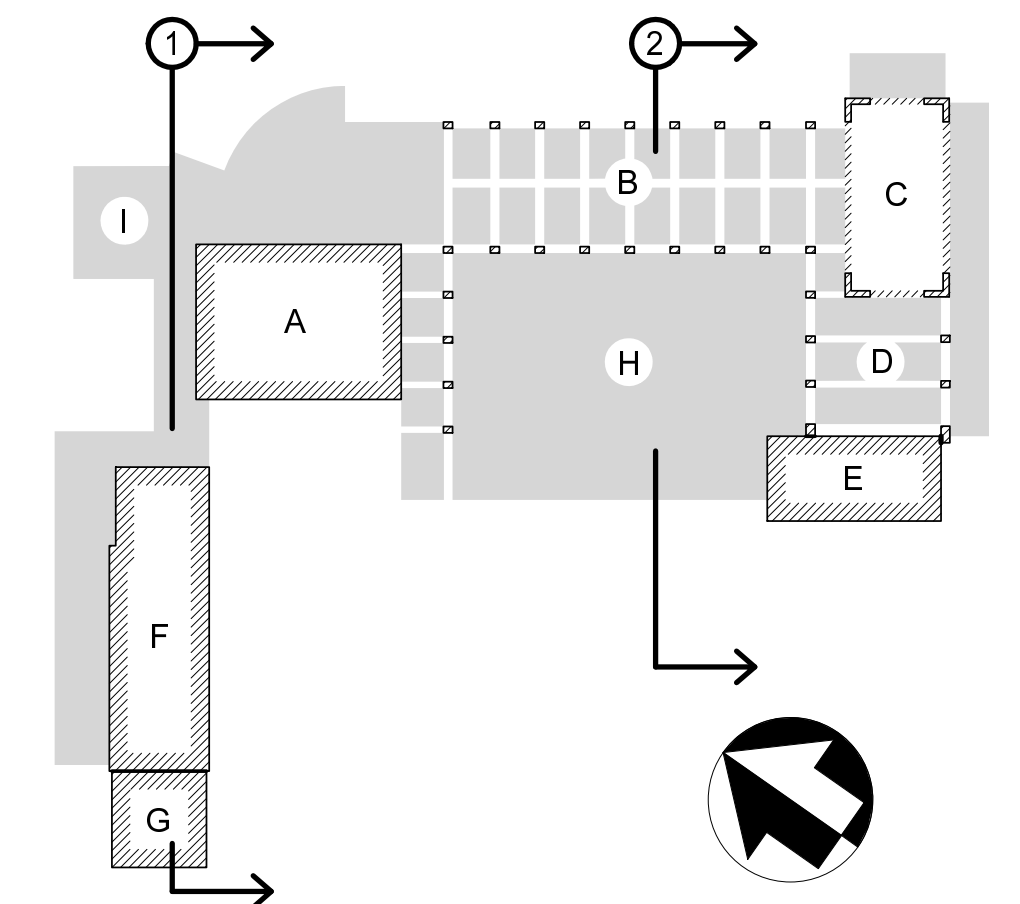




2 SECTION - THROUGH COURTYARD
A1.06/A3.03 SCALE: 1/8" = 1'-0"

SHEET NOTES

1. LINE OF GRADE IS CONCEPTUAL AND FOR GENERIC PURPOSES ONLY. SEE SITE/CIVIL DRAWINGS FOR REQUIREMENTS.
2. REFER TO ARCHITECTURAL NARRATIVES FOR BUILDING ASSEMBLY BASIS OF DESIGNS

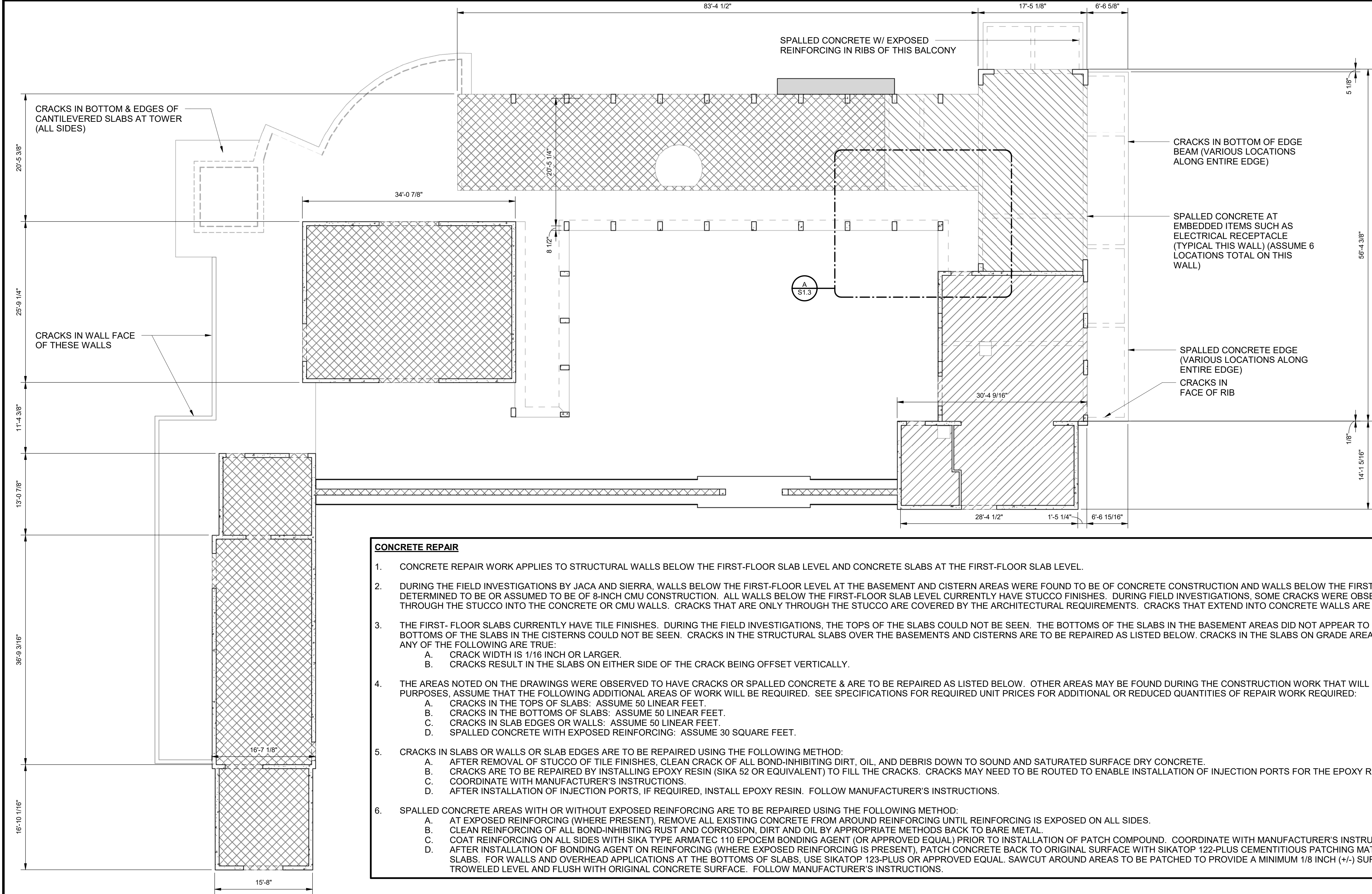
KEY PLAN



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	DATE: 2/3/2021		

SALT RIVER BAY NATIONAL HISTORICAL PARK
REHABILITATE SALT RIVER VISITOR CONTACT STATION

SHEET
21 OF 29



CONCRETE REPAIR

- CONCRETE REPAIR WORK APPLIES TO STRUCTURAL WALLS BELOW THE FIRST-FLOOR SLAB LEVEL AND CONCRETE SLABS AT THE FIRST-FLOOR SLAB LEVEL.
- DURING THE FIELD INVESTIGATIONS BY JACA AND SIERRA, WALLS BELOW THE FIRST-FLOOR LEVEL AT THE BASEMENT AND CISTERN AREAS WERE FOUND TO BE OF CONCRETE CONSTRUCTION AND WALLS BELOW THE FIRST-FLOOR LEVEL AT OTHER AREAS WERE DETERMINED TO BE OR ASSUMED TO BE OF 8-INCH CMU CONSTRUCTION. ALL WALLS BELOW THE FIRST-FLOOR SLAB LEVEL CURRENTLY HAVE STUCCO FINISHES. DURING FIELD INVESTIGATIONS, SOME CRACKS WERE OBSERVED THAT MAY OR MAY NOT EXTEND THROUGH THE STUCCO INTO THE CONCRETE OR CMU WALLS. CRACKS THAT ARE ONLY THROUGH THE STUCCO ARE COVERED BY THE ARCHITECTURAL REQUIREMENTS. CRACKS THAT EXTEND INTO CONCRETE WALLS ARE TO BE REPAIRED AS LISTED BELOW.
- THE FIRST- FLOOR SLABS CURRENTLY HAVE TILE FINISHES. DURING THE FIELD INVESTIGATIONS, THE TOPS OF THE SLABS COULD NOT BE SEEN. THE BOTTOMS OF THE SLABS IN THE BASEMENT AREAS DID NOT APPEAR TO HAVE SIGNIFICANT CRACKING ISSUES. THE BOTTOMS OF THE SLABS IN THE CISTERNS COULD NOT BE SEEN. CRACKS IN THE STRUCTURAL SLABS OVER THE BASEMENTS AND CISTERNS ARE TO BE REPAIRED AS LISTED BELOW. CRACKS IN THE SLABS ON GRADE AREAS ARE TOO BE REPAIRED AS LISTED BELOW IF ANY OF THE FOLLOWING ARE TRUE:
 - CRACK WIDTH IS 1/16 INCH OR LARGER.
 - CRACKS RESULT IN THE SLABS ON EITHER SIDE OF THE CRACK BEING OFFSET VERTICALLY.
- THE AREAS NOTED ON THE DRAWINGS WERE OBSERVED TO HAVE CRACKS OR SPALLED CONCRETE & ARE TO BE REPAIRED AS LISTED BELOW. OTHER AREAS MAY BE FOUND DURING THE CONSTRUCTION WORK THAT WILL REQUIRE WORK. FOR ESTIMATING PURPOSES, ASSUME THAT THE FOLLOWING ADDITIONAL AREAS OF WORK WILL BE REQUIRED. SEE SPECIFICATIONS FOR REQUIRED UNIT PRICES FOR ADDITIONAL OR REDUCED QUANTITIES OF REPAIR WORK REQUIRED:
 - CRACKS IN THE TOPS OF SLABS: ASSUME 50 LINEAR FEET.
 - CRACKS IN THE BOTTOMS OF SLABS: ASSUME 50 LINEAR FEET.
 - CRACKS IN SLAB EDGES OR WALLS: ASSUME 50 LINEAR FEET.
 - SPALLED CONCRETE WITH EXPOSED REINFORCING: ASSUME 30 SQUARE FEET.
- CRACKS IN SLABS OR WALLS OR SLAB EDGES ARE TO BE REPAIRED USING THE FOLLOWING METHOD:
 - AFTER REMOVAL OF STUCCO OF TILE FINISHES, CLEAN CRACK OF ALL BOND-INHIBITING DIRT, OIL, AND DEBRIS DOWN TO SOUND AND SATURATED SURFACE DRY CONCRETE.
 - CRACKS ARE TO BE REPAIRED BY INSTALLING EPOXY RESIN (SIKA 52 OR EQUIVALENT) TO FILL THE CRACKS. CRACKS MAY NEED TO BE ROUTED TO ENABLE INSTALLATION OF INJECTION PORTS FOR THE EPOXY RESIN.
 - COORDINATE WITH MANUFACTURER'S INSTRUCTIONS.
 - AFTER INSTALLATION OF INJECTION PORTS, IF REQUIRED, INSTALL EPOXY RESIN. FOLLOW MANUFACTURER'S INSTRUCTIONS.
- SPALLED CONCRETE AREAS WITH OR WITHOUT EXPOSED REINFORCING ARE TO BE REPAIRED USING THE FOLLOWING METHOD:
 - AT EXPOSED REINFORCING (WHERE PRESENT), REMOVE ALL EXISTING CONCRETE FROM AROUND REINFORCING UNTIL REINFORCING IS EXPOSED ON ALL SIDES.
 - CLEAN REINFORCING OF ALL BOND-INHIBITING RUST AND CORROSION, DIRT AND OIL BY APPROPRIATE METHODS BACK TO BARE METAL.
 - COAT REINFORCING ON ALL SIDES WITH SIKA TYPE ARMATEC 110 EPOCEM BONDING AGENT (OR APPROVED EQUAL) PRIOR TO INSTALLATION OF PATCH COMPOUND. COORDINATE WITH MANUFACTURER'S INSTRUCTIONS FOR PREPARATION REQUIREMENTS.
 - AFTER INSTALLATION OF BONDING AGENT ON REINFORCING (WHERE EXPOSED REINFORCING IS PRESENT), PATCH CONCRETE BACK TO ORIGINAL SURFACE WITH SIKATOP 122-PLUS CEMENTITIOUS PATCHING MATERIAL OR APPROVED EQUAL AT TOPS OF SLABS. FOR WALLS AND OVERHEAD APPLICATIONS AT THE BOTTOMS OF SLABS, USE SIKATOP 123-PLUS OR APPROVED EQUAL. SAWCUT AROUND AREAS TO BE PATCHED TO PROVIDE A MINIMUM 1/8 INCH (+/-) SURFACE PROFILE TO ALLOW NEW PATCH TO BE TROWELED LEVEL AND FLUSH WITH ORIGINAL CONCRETE SURFACE. FOLLOW MANUFACTURER'S INSTRUCTIONS.

CONCRETE REPAIR PLAN

1/8" = 1'-0"

PROFESSIONAL SEAL

SCALE: 1/8" = 1'-0"

DESIGNED:

DWU

CADD:

LGC

TECH. REVIEW:

DATE:

01/21/21

SUB SHEET NO.

S1.2

TITLE OF SHEET

CONCRETE REPAIR PLAN

SALT RIVER BAY NATIONAL HISTORICAL PARK
VISITOR CONTACT STATION REHABILITATION

DRAWING NO.

399

170432

PMIS/PKG NO.

251127

SHEET

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